SEP 1933
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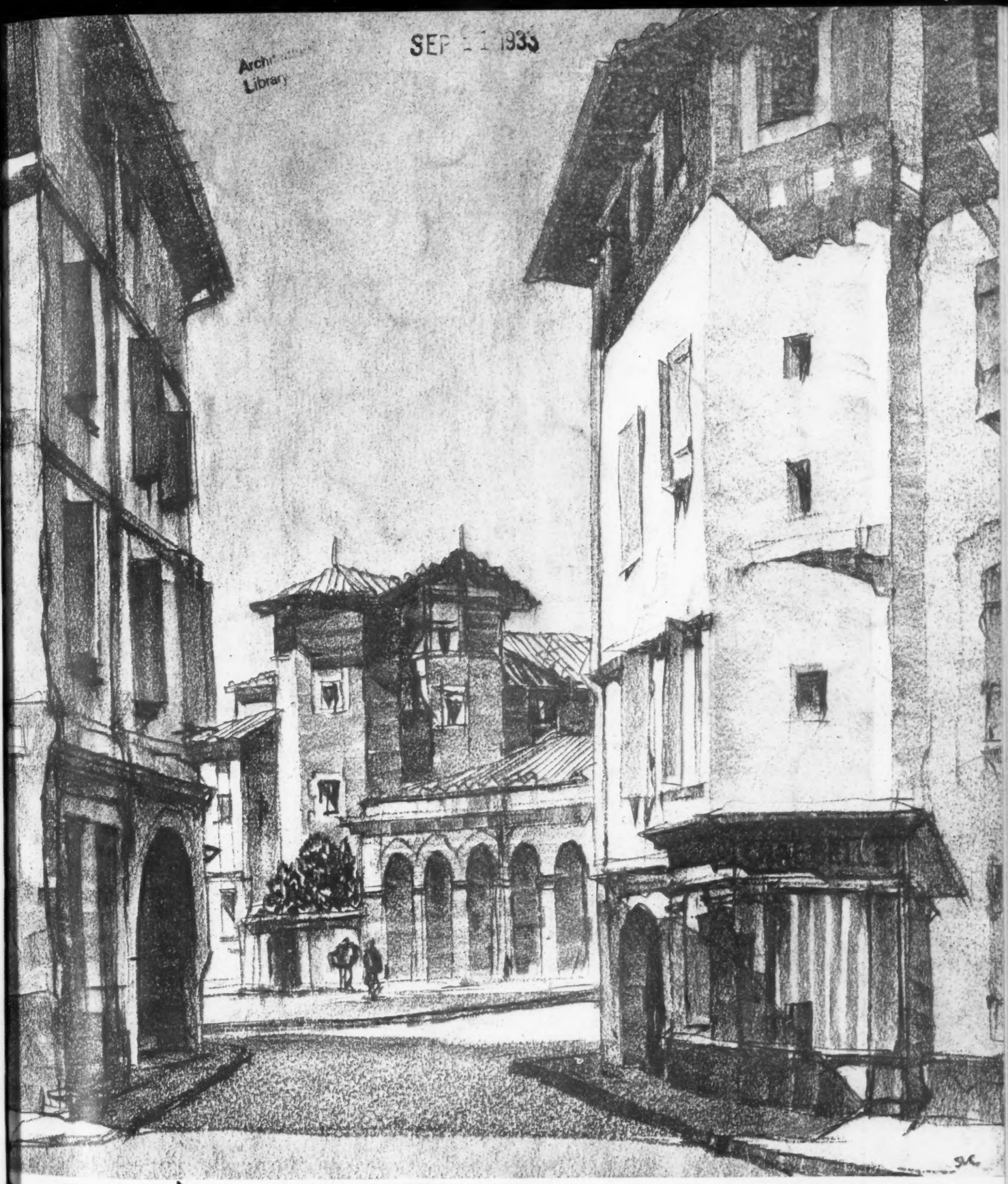
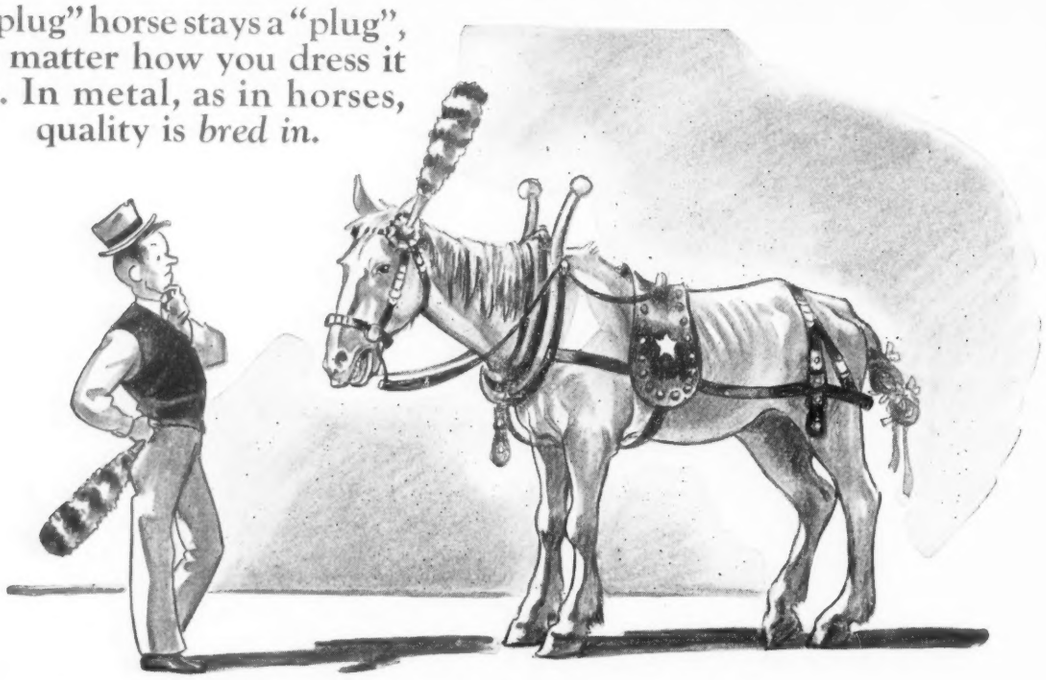


PENCIL POINTS

SEPTEMBER
1933

AN ILLUSTRATED JOURNAL for the DRAFTING ROOM

a "plug" horse stays a "plug", no matter how you dress it up. In metal, as in horses, quality is *bred in.*



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READING PUDDLED IRON

SINCE 1848

READING IRON COMPANY PHILADELPHIA

Science and Invention Have Never Found a Satisfactory Substitute for Genuine Puddled Iron

Pencil Points, published monthly by The Pencil Points Press, Inc., at 258 Atlantic St., Stamford, Conn. Publication office, Stamford, Conn. Editorial and Advertising Offices 330 West 42nd Street, New York, N. Y. Yearly subscription $3.00, single copies 35 cents. Entered as second class matter, March 10, 1930, at the Post Office, Stamford, Conn., under the Act of March 3, 1879. Volume XIV, No. 9. Dated September, 1933

And What of the Draftsman?

The American Institute of Architects has filed a Code of fair practice on which, as yet, no hearings have been held. It is therefore impossible to state whether or not this Code will be approved as submitted or will be rejected or modified.

Whatever the effect of this Code may prove to be, and however it may be administered if approved, it is clear that a large body of architecturally trained men—namely, draftsmen and designers not maintaining their own offices and classifiable therefore as employees rather than employers—are not included under the Architects' Code.

The question naturally has arisen in the minds of many draftsmen as to just where they fit in under the National Industrial Recovery Act. This question is being actively discussed in various parts of the country and, so far as we are informed, is taking two rather definite and widely different forms. It has been proposed that the draftsmen organize a national group which shall in some fashion be affiliated with those architects who will operate under the Architects' Code, when, as, and if adopted. Another proposal, of a radically different character, is to the effect that the draftsmen of the country should be organized as a Union to be affiliated with the American Federation of Labor.

It is the opinion of the editors of PENCIL POINTS that the architecturally trained men of the country, who, because they are not employers but are on the contrary salaried workers employed by others, should form a series of local groups which could and should then be brought together as a national body for the safeguarding of the interests of this class of professional workers. This would provide means by which the needs, aims, and desires of the draftsman could find some authoritative expression. We do not believe that a labor union would be the most effective type of organization for the purposes in view—not that we have anything against labor unions as such, but it is distinctly our feeling that to unionize the draftsmen of the country would not bring about the desired results. Especially would such action not tend to bring about that close cooperation between architects and draftsmen which we deem to be necessary in the best interests of both.

Letters from our draftsman readers, commenting upon the question raised herewith, are invited. They may be signed or unsigned as the writer may prefer. If signed we would like to have the author indicate his willingness or otherwise to have his letter published in case the editors should feel that his letter constitutes a valuable contribution to the discussion.

The Architectural draftsmen are perhaps the least organized of any professional group. They are really not organized at all and the depression has wrought such devastation in the ranks of the draftsmen that they are in anything but good shape to create at this time an organization for their own benefit. Nevertheless, there are many courageous and able men still to be found in the ranks of the draftsmen who should take the leadership both in expressing the opinions of themselves and their associates and in carrying out such details of organization as may be subsequently decided upon. It is our belief that the majority of practicing architects would give to a national organization of draftsmen, created along professional lines, their cordial and active support. It is our further belief that the architects, taken as a group, are extremely sympathetic to the present plight of the draftsmen and can be counted upon to extend every reasonable measure of helpfulness in the present emergency.

We repeat the question—what of the draftsman? Shall he continue to go on as he has, each man for himself, or shall a representative group be formed which, under enlightened leadership, shall make audible the feelings and ideas of this most important element in the professional life of the country.

At the present time, both because of lack of organization and because of the disintegrating effects of the past three years, the draftsmen are not in a position to cooperate with the President or with the architects in bringing about better conditions and in assisting the recovery program.

No matter what your opinions on this subject may be, they are cordially invited and we believe that the present time calls for an expression from every man who has been a draftsman and who desires in years to come to retain his identity with architectural work.

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Take a Bath-house, for example

AND take the swimming-pool, too, if you will. Not just because we've got a product to sell that's plastered all over the place, but because the job will give you some idea of how useful and helpful a material Atlas White portland cement really is.

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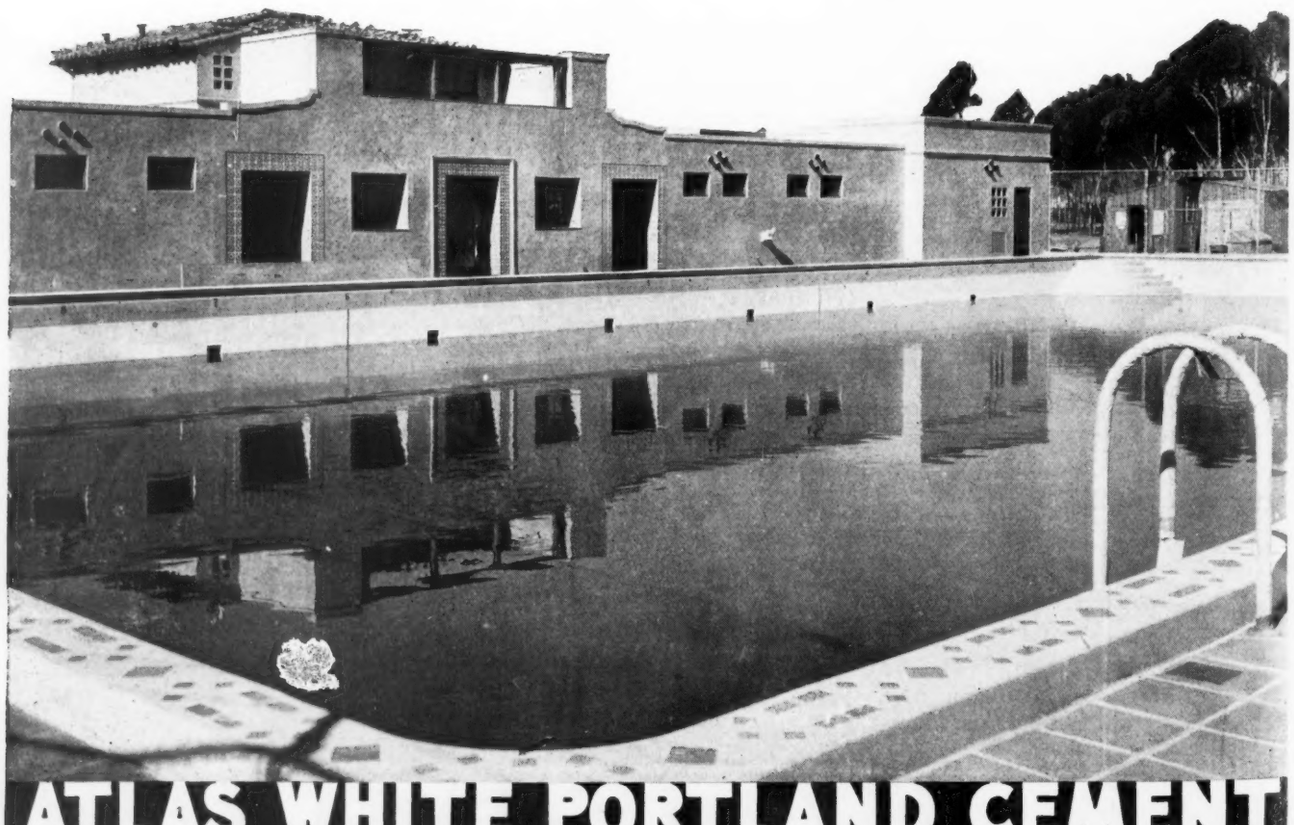
Bath-house and swimming-pool, Balboa Park, San Diego, Calif. Built by city unemployment committee. Cast stone gutter and curb made by Linda & Little Co. Requa & Jackson, architects. All of San Diego.



ATLAS WHITE PORTLAND CEMENT

Russell F. Whitehead
Editor

Kenneth Reid
Managing Editor

September 1933

PENCIL POINTS

Vol. XIV — *Something for Everyone in the Architectural Profession* — No. 9

Cover Design
Noontime—Gaillac
by Samuel Chamberlain

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Craftsmanship
Office Layout
General Culture
Office Management
Miscellanea
Competitions
Education

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TO CONTRIBUTORS: Articles, drawings, photographs, etc., sent with a view to publication will be carefully considered, but the Publisher will not undertake responsibility for loss or damage.

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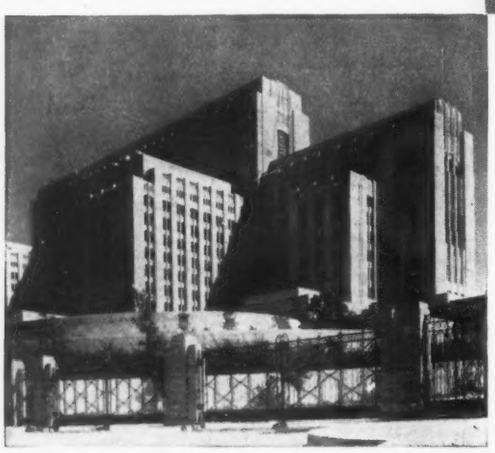
Pencil Points is indexed regularly in The Art Index.

MONOLITHS IN CONCRETE

"The Architect of the Future Will Be the Man Who Knows His Concrete"

Los Angeles County General Hospital, California; 3,600 beds. Associated Architects: Edwin Bergstrom, Pierpont Davis, William Richards, Myron Hunt, Sumner P. Hunt



The exterior of this building, except the entrance portal, is of MONOLITHIC CONCRETE over a frame of structural steel. Surface forms were made of 4-inch tongue-and-groove lumber, edges chamfered ¼ inch wide by 1/16 inch deep to produce the horizontal shadow lines.

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Address Your Inquiries to Room 299

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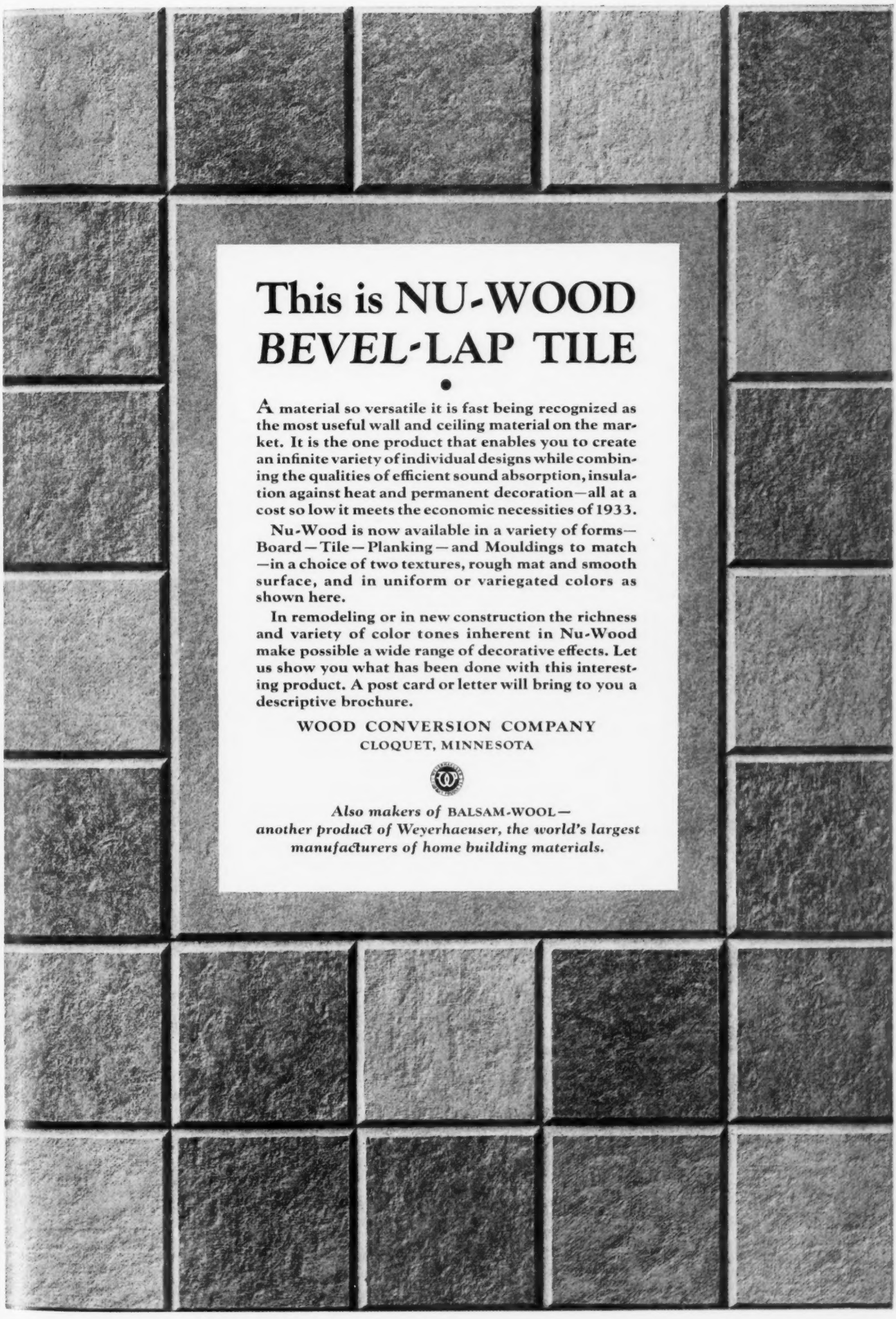

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RESIDENCE FOR ARTHUR S. MARTIN, ESQ., DARIEN, CONNECTICUT—COGGINS AND HEDLANDER, ARCHITECTS

FROM A RENDERING IN PENCIL AND PASTEL BY H. L. COGGINS

This most effective presentation of the design for a small house was drawn on a sheet of ordinary white tracing paper. The values were built up completely with graphite pencil. The color was then applied to the back of the drawing with pastel and the sheet stretched, by fastening at the edges, over a piece of tinted illustrator's board. In this way the color does not interfere with the original pencil drawing, which is left with every line clean and clear as it was originally drawn. The original was 16" wide.

PENCIL POINTS

Volume XIV September, 1933 Number 9

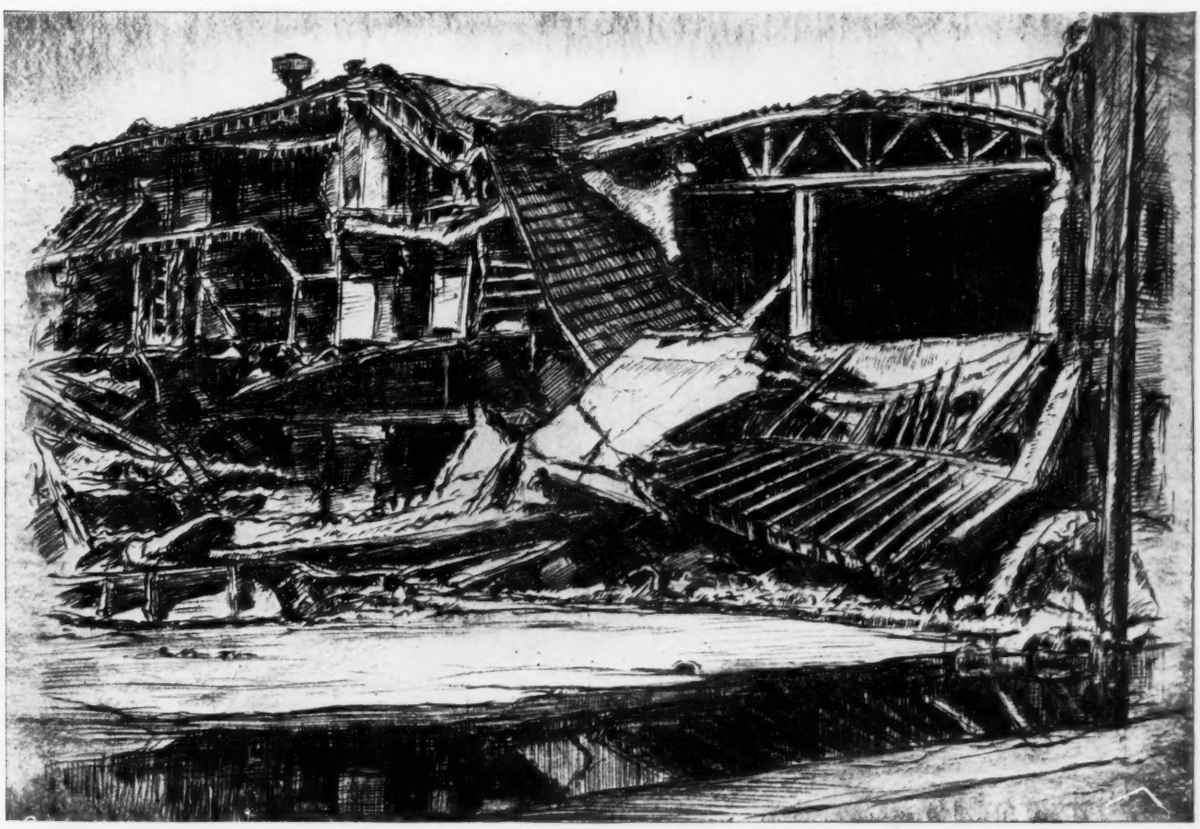
The California Earthquake Recorded in Black and White

A Notable Group of Drawings by Carl W. Heilborn

The six drawings reproduced herewith were selected from a group of twenty-six that were made on the scene of the California earthquake shortly after it occurred. The artist, Carl Westdahl Heilborn, is familiar to readers of PENCIL POINTS through an article in the June, 1932, issue as well as through other drawings reproduced subsequently. It just happened that he moved to Long Beach a few days before the earthquake and therefore had an opportunity to make this remarkable record.

The drawings were done mostly on cameo paper and measured approximately 12 inches by 18 inches. Some of them were made at night but in all of them there is an absence of strong light and strong cast shadow since Mr. Heilborn wanted to convey the feeling of disaster which pervaded the ruins in the gray and dim atmosphere that prevailed at the time.

In addition to being a record of the great disaster these drawings are serious studies in black and white composition and some of them may later be developed into etchings or lithographs. They bring out, more dramatically than could any photograph, the devastation that was caused by the earthquake. Architects can get from them an idea as to the effect of the disturbance upon structures in different materials.



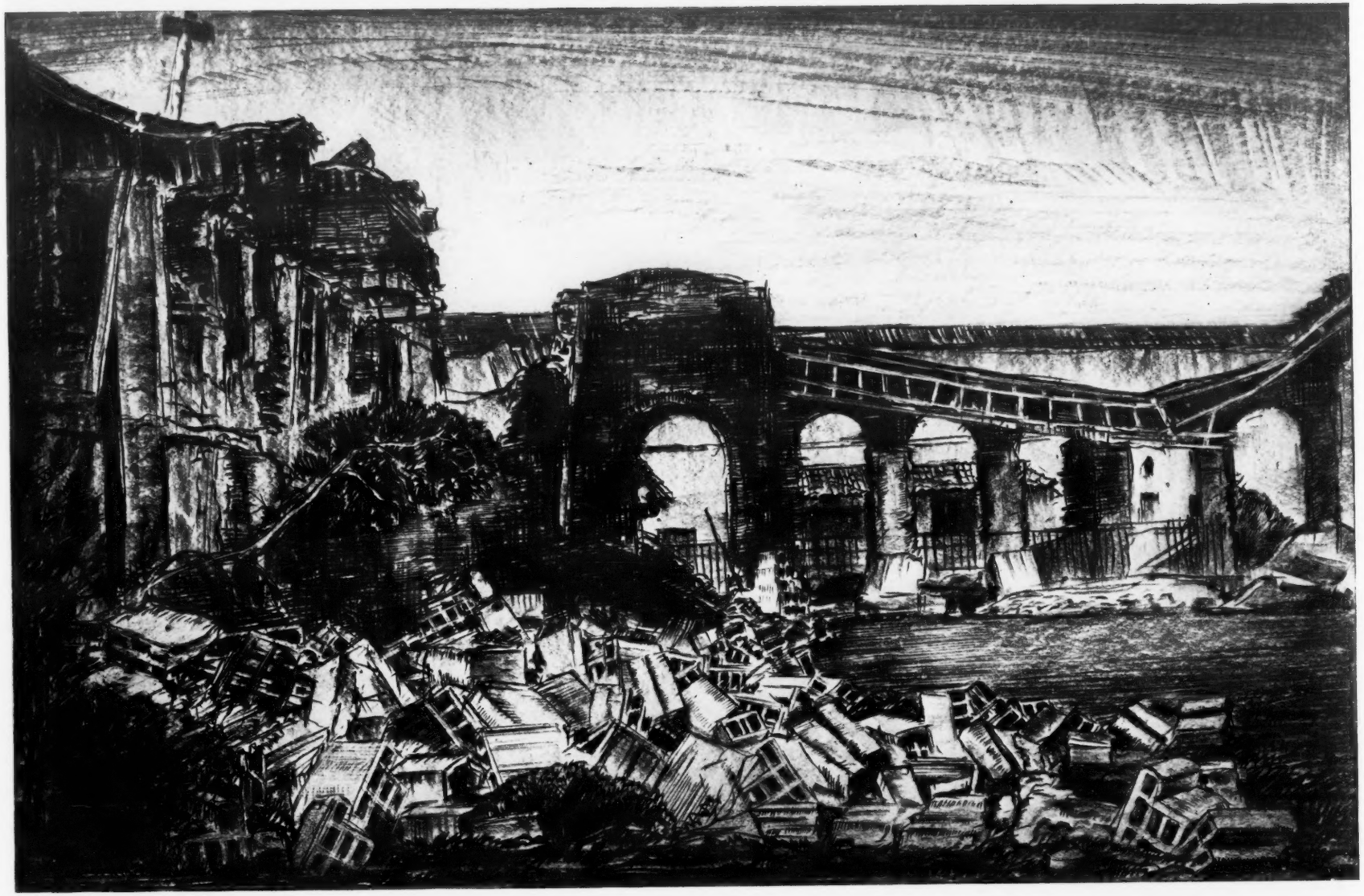
MASONIC TEMPLE, COMPTON—CONTE CRAYON DRAWING BY CARL WESTDAHL HEILBORN

JUNIOR HIGH SCHOOL, LONG BEACH, CALIFORNIA—MARCH, 1933

CONTE CRAYON DRAWING BY CARL WESTDAHL HEILBORN

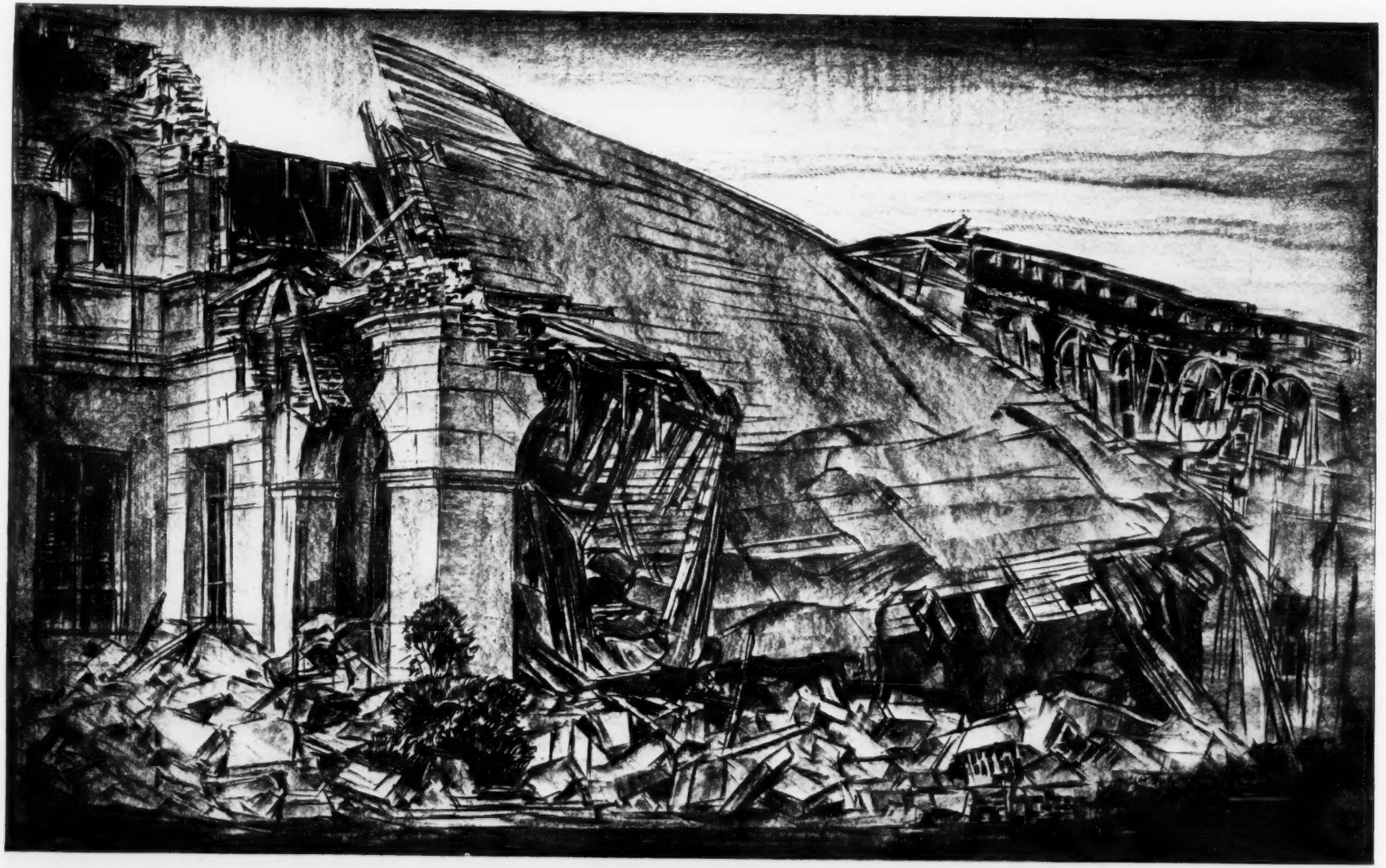
POLYTECHNIC HIGH SCHOOL, LONG BEACH, CALIFORINA—MARCH, 1933

CONTE CRAYON DRAWING BY CARL WESTDAHL HEILBORN



JUNIOR COLLEGE, COMPTON, CALIFORNIA—MARCH, 1933

CONTE CRAYON DRAWING BY CARL WESTDAHL HEILBORN



CITY HALL, COMPTON, CALIFORNIA—MARCH, 1933

CONTE CRAYON DRAWING BY CARL WESTDAHL HEILBORN

HIGH SCHOOL, HUNTINGTON PARK, CALIFORNIA—MARCH, 1933

CONTE CRAYON DRAWING BY CARL WESTDAHL HEILBORN

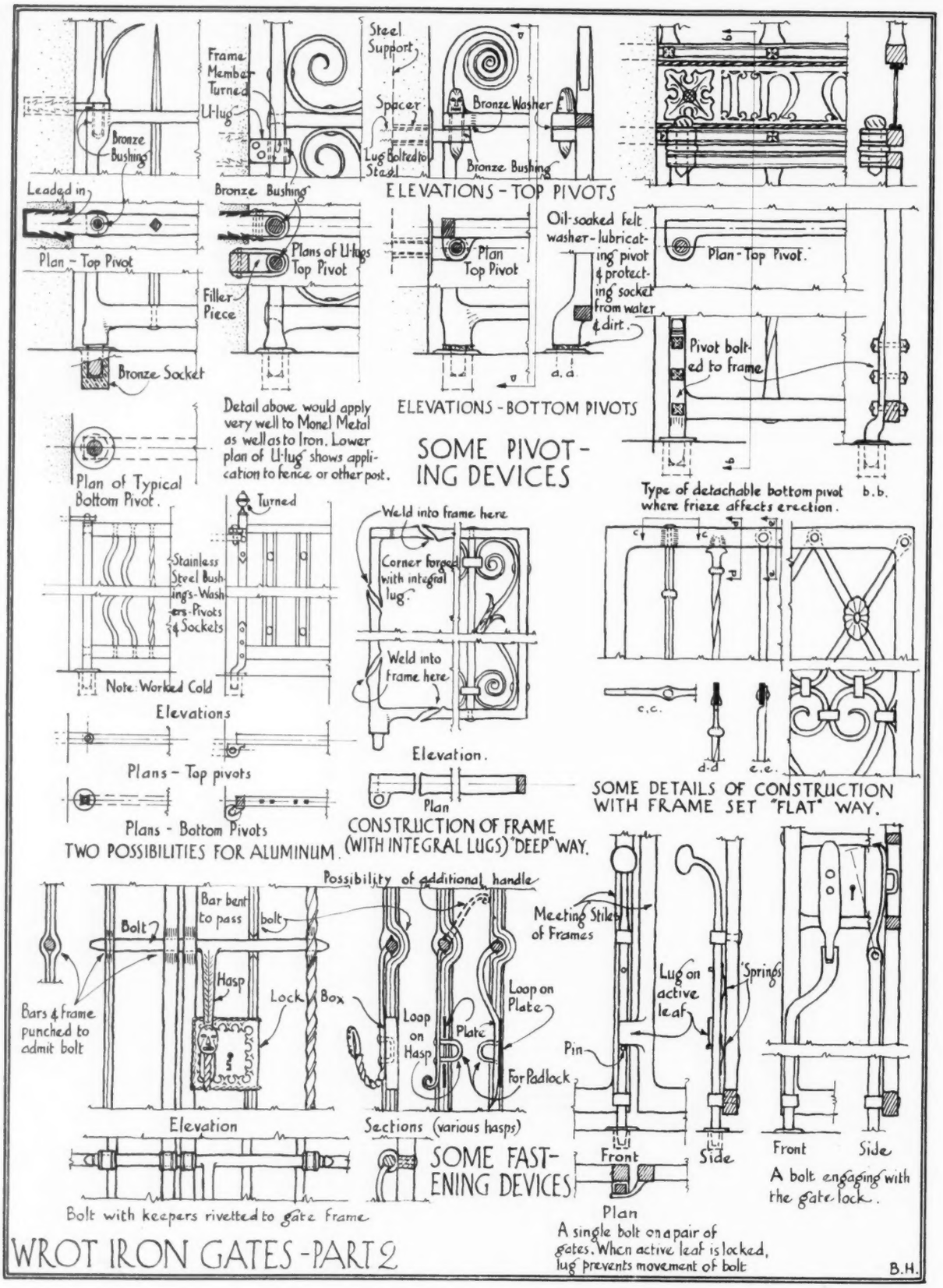
Wrought Metalwork, 3—Gates (Part 2)

By Bernard Heatherley

In making gates of any metal other than iron (ignoring here the process of casting) their frame members should be riveted or tenoned together. Monel metal, stainless steel, aluminum, etc., do not permit the craftsman's method of welding; even if one is inclined to accept a torch or electric weld as adequately safe, operations of the sort smack of the machine shop rather than the forge and will inevitably declare themselves. Here, as in all wrought metalwork, the consideration of what *should* be done —not what *can* be done—is of paramount importance. All of us have seen the violinist-contortionist who continues to play a tune while assuming all sorts of extravagantly impossible positions. If we like contortionists we wonder why the violin—played as it is then played—is allowed to spoil the act; and if we love music we wonder what is added to it when it is rendered under such difficulties as the striking of grotesque attitudes must impose. Similarly, if we are to enjoy the visual music of craftsmanship, our enjoyment will be based upon the solution of a problem by natural and beautiful means—not merely upon the conquest of intense and unnecessary difficulties. To assume that two problems involving two different metals may be met by using identical methods is to confess ignorance of the natures of both metals as well as a failure to analyze completely either problem. It is just as important to find out what new tools and methods are natural and logical for new materials as it is to recognize that old tools and methods are seldom improved upon for old materials.

Although the cross section of gate frame members may often be square—or near square—it is more likely that they will be definitely rectangular. Whether the long side of th's rectangle shall be parallel to the general plane of the gate or set at right angles to it is a matter involving a number of considerations. The latter (which I shall call the "deep" way) is the more typical because where the filling is composed of bars and certain other more usual forms of ornament, assembly is thus made easy and economical and a greater rigidity is imparted to the gate. Setting the frame the deep way is not always the most pleasing in appearance, however, and may actually prevent the attainment of certain archæological effects. In early Latin work (especially the Italian) the frame was more generally set the "flat" way and thus better accommodated the ornament it enframed. The rectangular section, when set this way, is usually quite thin, but its width gives a fine appearance of strength in confining the pattern. When set the deep way, the narrow edge of the cross section is presented (although it would never become as thin as flat way sections do) and a perspective view is necessary before the full weight of the frame is apparent. A certain "whip" is to be expected in a frame made the flat way, but—since a well-made gate will never become sprung —this whip is not to be objected to, although it might prove desirable to place fastening devices at more points than a stiffer frame would require. Setting a frame the flat way makes for a sense of lightness and is helpful where reveal depths are limited. If bars enter into the design of the frame filling, such a frame may be punched through—from edge to edge—and the bars shouldered and headed over as illustrated. Or they may be flattened at the ends and riveted to the flat side of the frame. Up to certain sizes of material and where a frame section is set the deep way, it is good practice to forge the corner and then weld it to the straight vertical and horizontal members of the frame. The making of a pivot or pivoting lug —integral with the corner—is done in the same way, being preferable to a pivot made separately and welded to the frame. The pivot is forged to its approximate diameter and then turned on the lathe to fit its socket exactly. It is interesting to note that early Spanish work very frequently has no frames—especially where gates were incorporated in *rejas*. Evidently the effect of continuity of spindles was desired and the outer spindles of the gates, on one side, form the pivots. Both outer spindles were riveted to top and bottom horizontal members. These were often double— 4″, 5″, or 6″ apart—and covered by sheet iron, richly *repoussé* and pierced. As is proved by existing examples, this method can be worked out satisfactorily—although some such pieces show a decided sag. It is seldom that a gate frame cannot be designed to add decorative interest to a screen or railing and, except for occasional archæological reasons, a frame is always to be recommended.

However well made a gate frame may be, and however superlative the general design and workmanship, it will be little more than a source of annoyance unless it swings sweetly and consistently or if its fastenings prove inadequate to resist, when necessary, all normal attempts to open it. While gates are occasionally hung on hinges (when light in construction or when the floor may not be made to take a socket) this is the least desirable of swinging methods. The constant strain and leverage exerted by the gate are more than such supports are likely to withstand over long periods (remaining perfect in function) unless extraordinary provisions are made—and these provisions are apt to result in clumsiness. If hinges must be used, a wary eye should be exercised to detect the cheap practice of using stock butts—"fixed up." There are occasions when this can be done effectively and at a saving of money—but the buyer should know what he is buying and the benefits of the economy should go where they are due. The better method of



DETAILS OF GATE CONSTRUCTION—PREPARED BY BERNARD HEATHERLEY

swinging gates—obvious enough in most cases—is to pivot them, the lower pivot resting in a socket at the floor which thus carries the load of the gate. The conditions governing the design of pivots may vary in every job. Obstructions of one sort or another may require the pivot to be offset from the centre line of the gate—its natural place. There may be conditions at the head or the foot that would make the erection of a gate with an integral pivot impossible—as, for example, where a frieze and cresting stretch across the opening or where the lintel itself prevents lifting the gate high enough to insert the bottom pivot into its socket. A few of the more common and satisfactory methods of meeting these problems are shown on the accompanying plate. It is recognized that friction between iron and bronze is less wearing than friction between iron and iron. Therefore, the bottom socket should be made of a hard bronze and the top pin or pivot should revolve in a bronze bushing. Where aluminum is concerned we have something very scientific called electrolytic action (a corroding and disintegrating force) to consider, which action seems to be most violent when aluminum is juxtaposed with any member of the bronze family. So far, stainless steel seems to quarrel less with aluminum than any other metal and is to be recommended for sockets and other wearing surfaces in aluminum work. The system of making separate pivots and riveting or bolting them to the gate frame—as dictated sometimes by erection conditions—should also be considered in using a metal where the forging of an integral pivot and corner would be uneconomical or unnatural. The top pivot is not required to carry the weight of the gate but is to hold the pivoted side in a vertical position. While it may be in the form of a pivot on the gate or on the pintle secured to a jamb, the more typical problem is solved by forging a lug on the gate frame to coincide with a lug at the jamb, the holes in both lugs bronze bushed and a pin dropped through them. Where the center of the pivot coincides with the centre of the vertical side of the frame, a most satisfactory top pivot is made by turning a short length of this frame member itself to the desired diameter at a point near the top of the gate. A U-shaped lug is then passed about it and fastened to a lug in the wall—or other support. The turning of the frame member is done, of course, before the frame is welded or riveted together, and obviously could not be done on a frame set the flat way or whose smallest cross section dimension was less than the diameter required for the pivot. Like all parts of the metalworking craft, pivoting devices provide opportunities for decorative interest and many fine things can be done with them.

The fastening devices of gates have always provided play for the craftsman's ingenuity and there remain—in certain directions—limitless possibilities for this detail. While a single gate can be held by a lock aloné, gates in pairs require some bolting arrangement in addition to their lock. The bolt may be used in a number of combinations and may be the simplest utilitarian piece or very elaborate and decorative. It may be employed vertically at the top of the frame or at the bottom or at both points—doubly or singly—operated individually or collectively; or it may be used horizontally with a hasp—and in any of these uses may be secured by lock or padlock or pin or lug. The hasp may be made with a loop or keeper which passes into the lock and through which shoots the lockbolt to hold it firm. Or the hasp loop may pass through a slotted plate, a punched bar, or another loop—to receive a padlock. Sometimes the hasp is slotted and the padlock keeper is stationary. The bolt itself may slide through keepers riveted to the face of frame and bars. It may be desirable for economy or interest to pass the bolt through holes punched in the frame and bars, frankly bending back such bars as the bolt slides past but not through. While the vertical bolt must be protected against the possibility of operation by the wrong persons who might reach through the bars from the outside, the horizontal bolt is often provided with a handle in addition to the hasp to permit its operation from either side—after the lock has been released. The horizontal bolt locked in place is usually sufficient security for a pair of gates as well as for a single gate—its length passes through several bars ensuring rigidity and absence of "play." In exterior work it has the advantage of eliminating sockets or keepers, let into the ground—as required for vertical bolts—which have been known to fill with dirt and ice. Vertical bolts are sometimes designed to engage with the lock so as to prevent unauthorized operation, but a very simple device—a lug on the active gate which (when the gates are closed) fits over the bolt on the inactive gate and prevents its withdrawal—is more economical and every bit as effective. Smooth movement of the gates is impossible unless the bolts are held clear of the ground. This is achieved usually by the employment of a flat spring (of non-corrosive metal for exterior work) between the bolt and the frame, or by turning the bolt so that one of its parts engages in a slot in the keeper. The latter is possible, of course, only when the bolt is round in section. There are numerous cases where quick convenient operation of the fastening is the important consideration—as in a garden gate which acts as a barrier merely against animals or children. The common latch and various types of spring catches prove adequate for such requirements.

The use of astragals on gates is an optional matter. Astragals are more fitting on the more refined and restrained types of work than on the freer, cruder types. They are apt to destroy that sense of openness or "looseness" so necessary to certain characters of metalwork. The work of an astragal can be well and economically done by small plates used as stops and shielding a locklatch from interference. The device which holds a gate open may be extremely simple—a plain hook and eye—a counterweighted keeper or the same bolt which holds the gate closed. The bumpers which are sometimes required to protect adjacent walls against being struck by the gate as it is opened may easily be incorporated with the holdback.

Photos by J. Frank Copeland

THE RECEPTION ROOM

THE CONFERENCE ROOM

TWO VIEWS IN THE OFFICES OF HARRY STERNFELD, ARCHITECT, PHILADELPHIA, PENNSYLVANIA

The wood wall and ceiling paneling and mouldings are of clear, selected, red gulf cypress, treated with an acid stain and wax finish; floors of linoleum—tan field and black border.

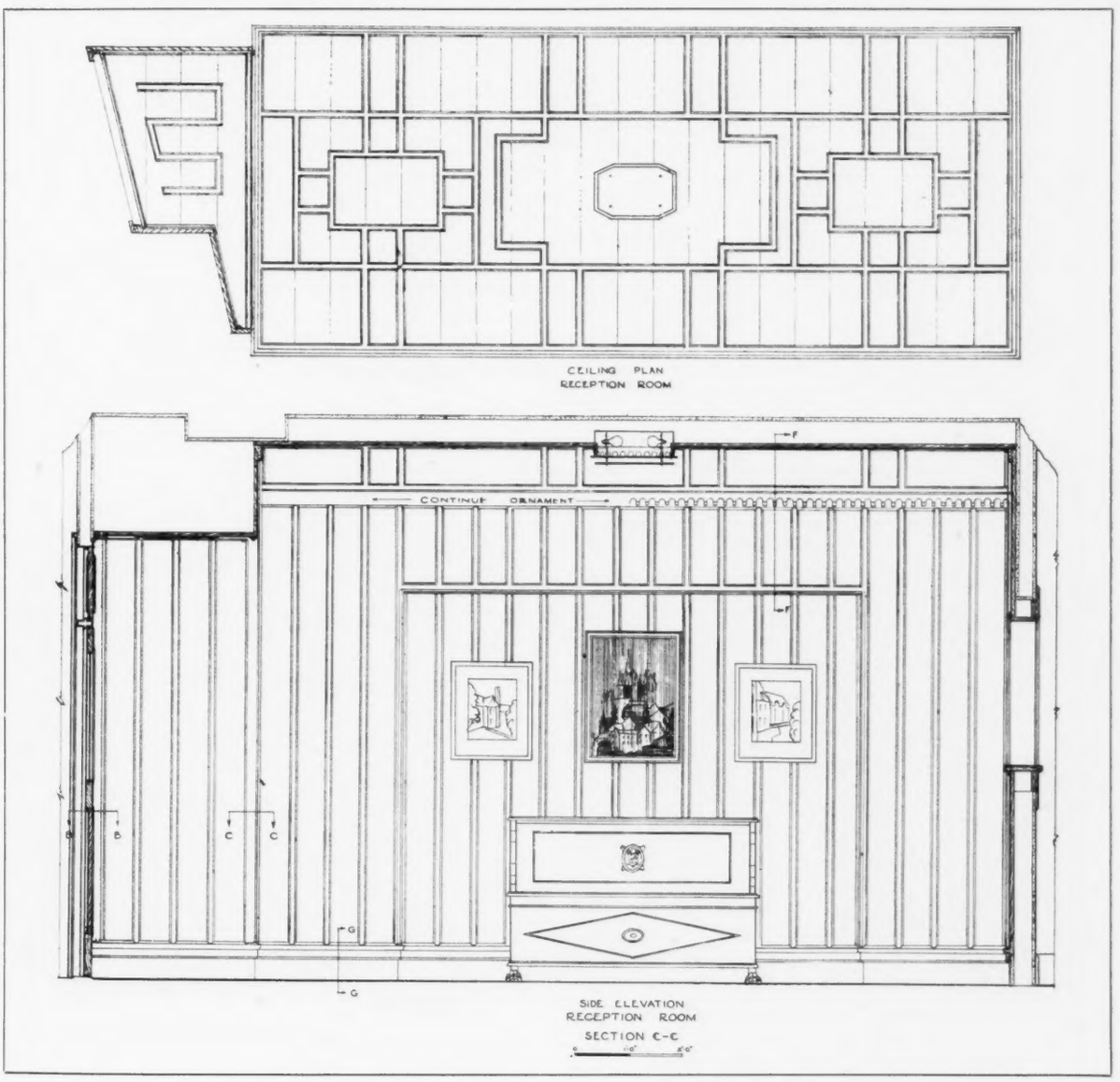
An Unusual Suite of Architectural Offices

The attractive and thoughtfully planned offices of Harry Sternfeld, Philadelphia architect and former Paris Prize winner, have drawn much favorable comment from visitors and the accompanying photographs and drawings, which show them partially should be of interest to other architects.

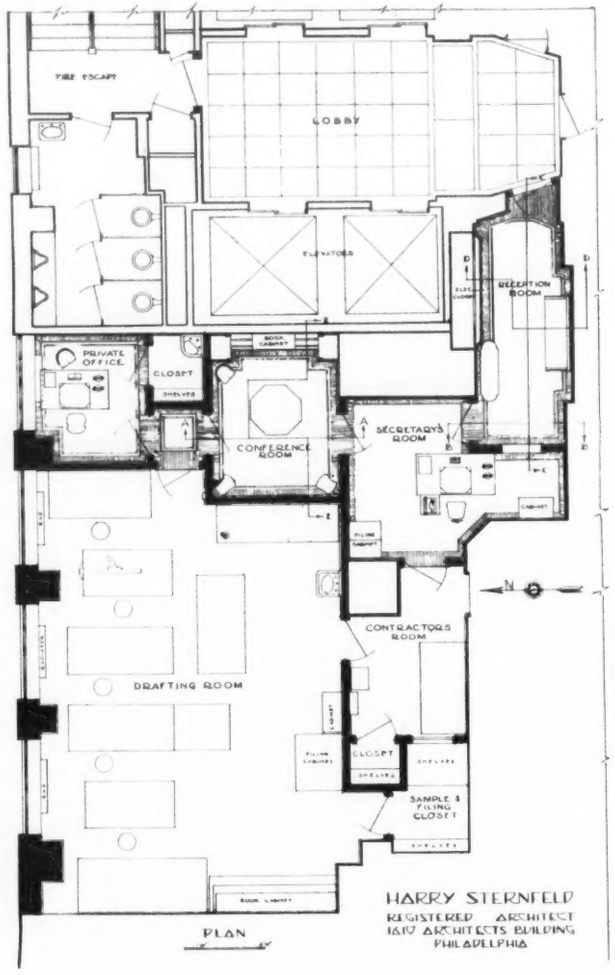
The plan of the offices shows the compact and convenient arrangement of the different rooms worked out to take best advantage of the available space. The arrangement permits transactions between the principal and clients, contractors, material men, and drafting force to take place readily and with no lost motion. Since the plan shown here was drawn it became necessary to have additional drafting space and an annex to the drafting room was consequently added to the west. The additional space measures approximately 18 feet by 28 feet, and provides room for six more drafting tables and a reference table.

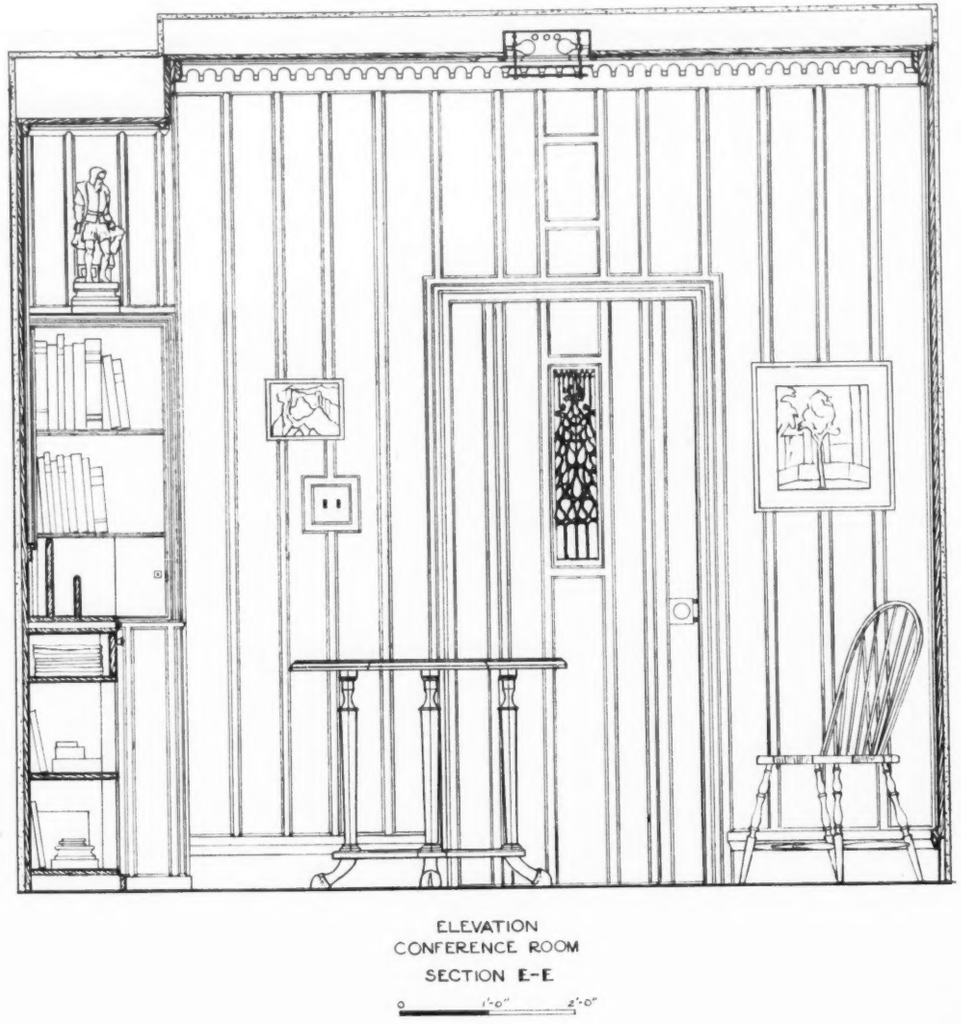
The woodwork of the reception room and the conference room is particularly interesting and Mr. Sternfeld has here achieved a rather rich effect with simple and inexpensive means. The arrangement of cupboards and shelves in the small conference room was carefully worked out to house an adequate working library and also to make effectively decorative disposition of a number of small works of art upon which the visitor's eye can focus pleasurably.

The wood wall and ceiling paneling and mouldings are of clear, selected, red gulf cypress, treated with an acid stain and wax finish; floors of linoleum—tan field and black border.



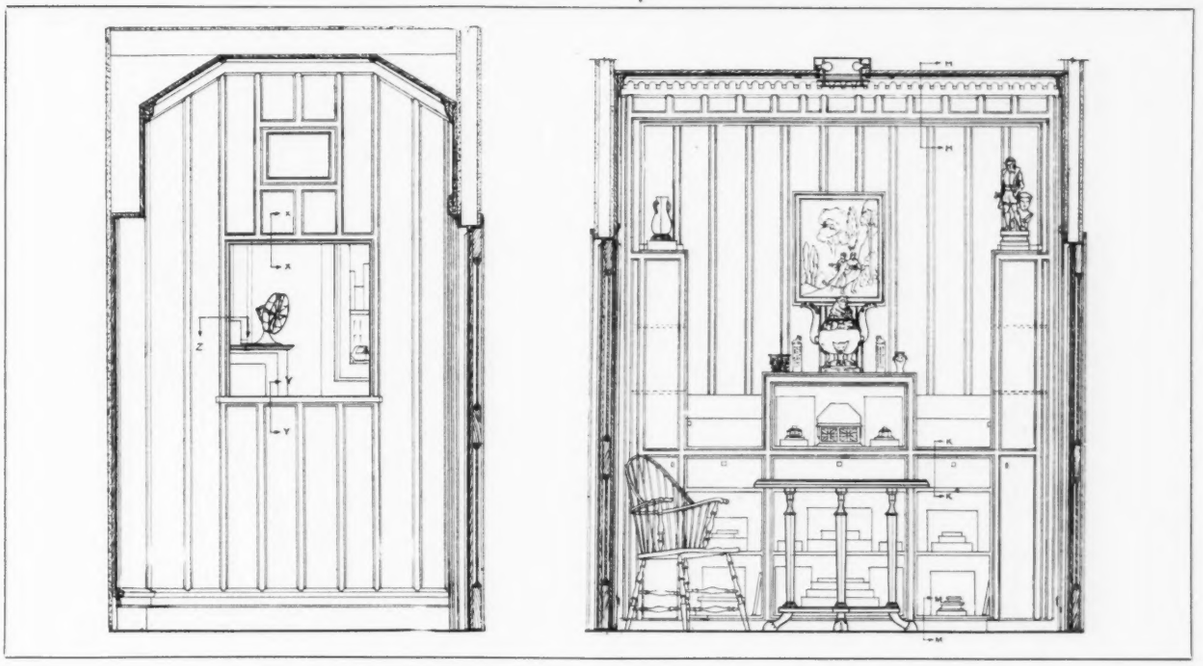
SIDE ELEVATION AND CEILING PLAN, RECEPTION ROOM, OFFICES OF HARRY STERNFELD, PHILADELPHIA



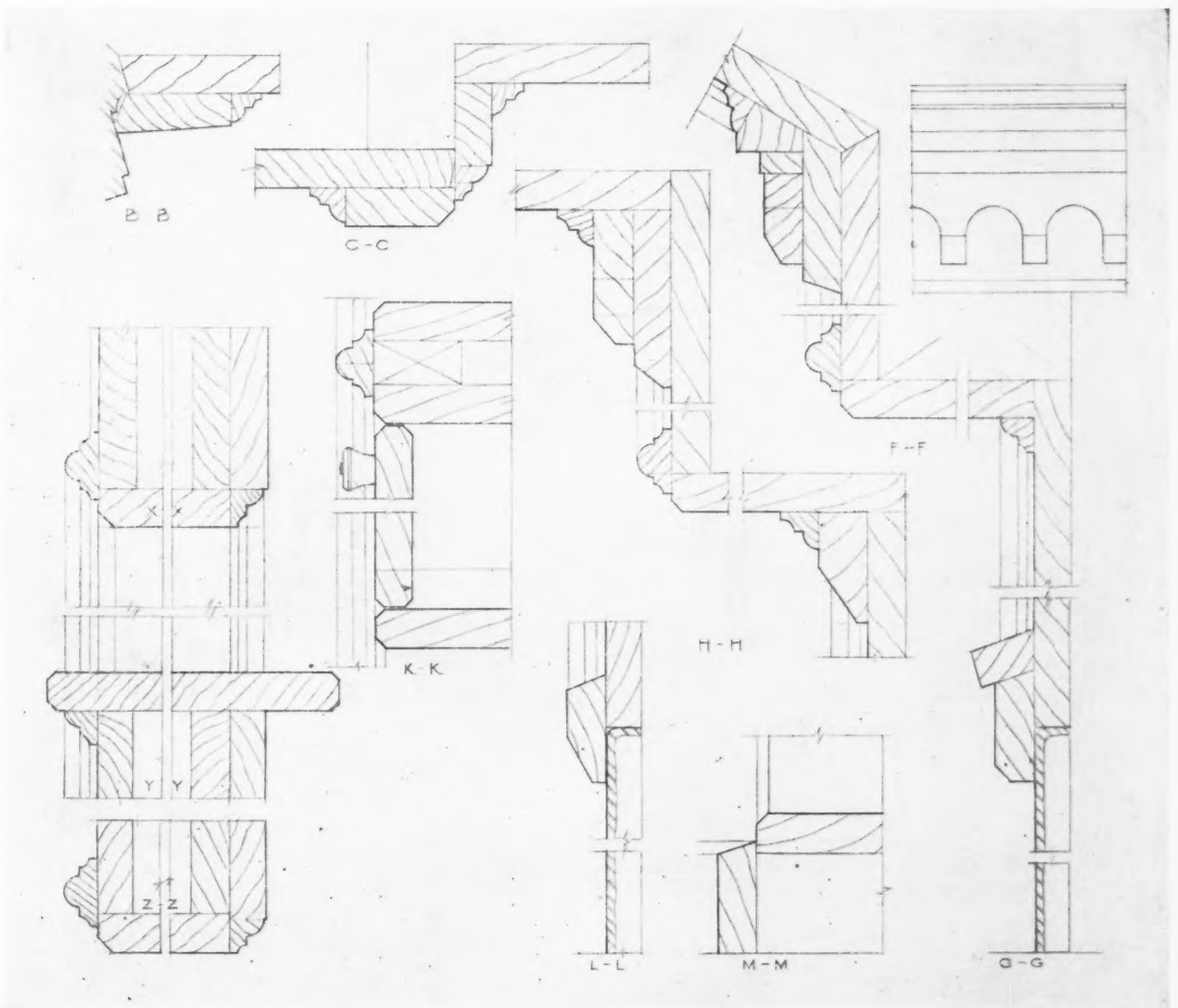


PLAN OF OFFICES AND ELEVATION OF CONFERENCE ROOM, OFFICES OF HARRY STERNFELD, PHILADELPHIA

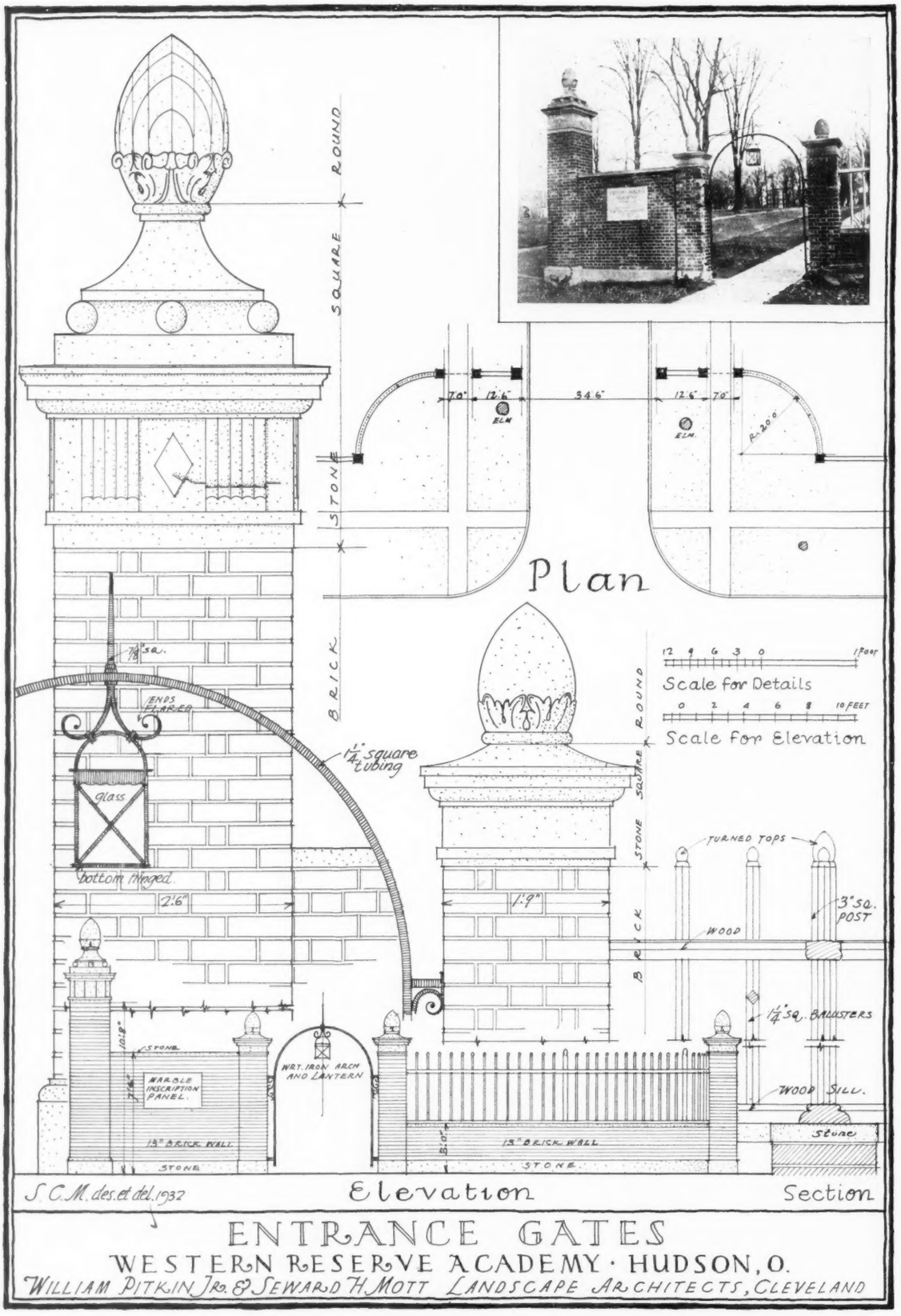
Since this plan was drawn, the drafting room has been nearly doubled in size by an extension to the west.



END OF RECEPTION ROOM AND CONFERENCE ROOM IN ELEVATION



DETAILS OF WOODWORK, OFFICES OF HARRY STERNFELD, PHILADELPHIA



DETAIL OF ENTRANCE GATE, BY PITKIN AND MOTT, LANDSCAPE ARCHITECTS

Ripley's Recipes

By Hubert G. Ripley, F. A. I. A.

"Camphire, with spikenard, Spikenard and saffron; calamus and cinnamon; with all trees of frankincense; myrrh and aloes, with all the chief spices:" S. O. S.

IV—*Saffron*

SAFFRON:—Var. Crocus Salivus or Cartwrightianus, a coloring material consisting of the dried stigmas and part of the style of the common yellow crocus. Yet not so common after all, for that particular species differs from the spring crocus in that it flowers in the fall, instead of being almost the first harbinger of the vernal Equinox, pushing up its tender little snout through the snow on the sheltered sunny patches near our mint bed.

Those who wish to raise saffron for the cuisine should plant the corms in the beginning of summer, in rows about six inches apart and three inches o. c., the soil being well tilled sandy loam. In foreign parts little children and beldames gather the stigmas in the early morning just after the flowers begin to open. Five pounds to the acre is considered a good yield for the first year. The second year it's not so good, two pounds instead of five, and after that the soil has to be re-tilled. Even so, the crop is worth while, for in 1878, when our "Chambers Encyclopedia" was published, the market was $10.00 an ounce. This sweet smelling herb is mentioned in the Cant'cles, IV, 14, and by Homer, Hippocrates, and other Greeks as well. Chinese writers repeatedly refer to it, and Nero always ordered it sprinkled in his path when on his way to the Arena to officiate at an holocaust, or to recite a few Iambics.

The original saffron crocus came from Asia Minor where it grew wild under the walls of Troy and Cyzicus, which latter city Florus (L. Annæus Julius, the panegyrist of Hadrian, the Emperor-Architect) calls the "Rome of Asia." Cyzicus, it will be recalled, was founded on an island in the Propontis, and connected to the mainland with bridges, built by Alexander the Great. It had a magnificent temple, "the pillars thereof being four cubits thick and fifty cubits high, were each of one entire stone only; the whole fabric all of polished marble, every stone joined unto the other with a line of gold." The poet, Paul Silentiarius (VI cent.), describes the Mauritanian marble as having a gold or saffron hue, and it is authoritatively presumed that some of the columns from Cyzicus were placed by Anthemius of Tralles in the great church of Santa Sophia. Doubtless centuries of seepage from the saffron stigmas that grow so profusely in the near east, have had their effect on the marble quarries beneath the soil. (ibid.)

All, or most all the saffron used for cooking purposes is now imported, for its cultivation in England, where it was introduced in 1339 by a pilgrim, has entirely ceased, they say; barley, malt, and cattle having proved more profitable. The history of this thurifurous herb reads like romance, and we regret that the exigencies of time and space preclude more extended comment. When used in cookery, saffron imparts an aromatic spicy flavor to certain dishes that is most titillating to the palate. Eddie, our favorite waiter (his full name is Edwardo Torino, and he knows more about most things than anybody else), described the preparation of a "risotto Milanese" once, that almost brought tears to one's eyes. We were late for lunch that day; most of the customers had left, so Eddie had leisure to talk. A few months previously, almost a year in fact, we had acquired a keg of white grape juice. The best advice obtainable had been followed, keeping it in the cellar in an even temperature of 60 to 65 degrees in a dark place, an empty ginger ale bottle up-ended in the bunghole to allow a little air to promote fermentation, and, at the same time, keep out dust and inquisitive mice; you all doubtless have had similar experiences. The "sauterne," or "white Burgundy," I've forgotten which the salesman called it, was coming along finely—an almost authentic flavor, and strong as the spear of Pallas Athene. We wanted something to go with it, to supplement its apparently admirable qualities, a dish that would act as a foil and, at the same time, supply the essential Vitamin G. The memory of a delicious little dinner on the terrace of a restaurant near the railroad station in Milan, while waiting for the train for Como, frequently comes to mind. The principal dish was rice, flavored with saffron, washed down with a bottle of Orvieto. It seemed just the right thing at the time, and we asked Eddie if he'd ever made a risotto, for Eddie is an authority in such matters. He had, and described the method in detail.

"Take an onion," he said, "and chop it up in small bits. Fry it in fresh butter until it's a golden color. Don't let it burn or brown and use plenty of butter. After it is well cooked, add a handful of rice for each person and sauté this in the hot butter until all the kernels are well covered, *'faire revenir,'* as our Gallic friends would say. Use the Virginia rice, or "Italian" rice, so called; it's not so soft, has a better flavor, and doesn't mush up like the ordinary rice. Sprinkle with a little salt and pepper and add gradually, stirring all the while, a quantity of good stock, beef or chicken or veal. Liebig's extract of beef is even better, dissolved in boiling water, using sufficient to make a rich consommé, if you haven't enough stock. Test it from time to time by biting a kernel or two between the teeth to see if it's properly cooked. The Italians like it *'denté,'* not soft like the Americans. When

just right, small bits of chicken or cut-up kidneys, or chicken livers, previously cooked, may also be added. Just before serving it up, stir in a '*pot de safran*,' and have plenty of grated Parmesan cheese to go with the dish; for accompaniment a bottle of good old wine, '*et on verra merveilles*,' as Savarin says."

"Where do you buy saffron?" we asked him.

"At Baldini's on North Street," replied Eddie.

"Isn't it awfully expensive?" we asked, thinking of the $10.00 an ounce cost in 1878.

"Oh, no!" said Eddie, "two for a quarter, three for a quarter. Tiny little pots with just enough saffron in each to cover the bottom. It's very savoury and one pot is just right for four people."

After purchasing some saffron that very afternoon, we found it was even as Eddie had told us. The pots were white china, fashioned after a famous old model but miniatures, appropriate size for a tiny doll, or a charm for the watch fob. The contents of a hundred pots would not have weighed an ounce. Baldini sawed us off a chunk of Parmesan, and we bought Italian rice, salami, and Gorgonzola, and pickled mushrooms besides—lots of fascinating things.

The following Sunday we invited some friends in for supper and told them there was to be a try-out of a new dish. They all came, Gertrude and Joe, Ken and Gene, Ruth and Roy, and Dorothy and Fred, just a nice quiet little crowd. We told the girls to keep out of the kitchen for we had a man's job on our hands. While the ladies were occupied with their knitting and tatting battens, the kitchen was a scene of bustle and confusion. In the largest kettle the ménage afforded, the *friture* was started, putting in all the chicken stock on hand. Fortunately, as it turned out later, there was an extra supply of half a dozen large cans of R. and R. chicken consommé in case more stock was needed. While waiting for it to simmer, there was a round of dry Martinis to sort of break the ice, as it were. Next a bucket of rice, all there was, which must have been quite a lot, was added, and Joe was given a large wooden spoon and told to keep the mass well stirred, so the rice wouldn't stick to the bottom. Joe had to have another Martini to ward off a sinking spell, so we all joined him. Shortly, the rice, which did not seem tender as yet, began to swell and it was well the large kettle was used, for it soon became almost full. This made it hard to stir and Ken helped with our other wooden spoon while some more Martinis were shaken up. The mass in the kettle looked dry so a can of R. and R. was added, and then another, until gradually all six went in without making much impression. It was hard work opening so many cans and took quite a few Martinis to keep up our courage. For a while affairs looked desperate, but with the helpful assistance of several rounds of Martinis the dish finally began to take shape. We'd been in the kitchen a long, long while, and were beginning to feel somewhat overcome, what with so much sustained effort and all; it was the mental strain, anxiety lest the dish mightn't come out well, fully as much as the physical labor of stirring, shaking up cocktails, and opening cans, that told. Finally all became conscious of an insistent pounding on the kitchen door by an irate and famished band of women demanding food. Hastily shaking up a double portion of Martinis, the door was unlocked just as the risotto was having its finishing touches added.

Somewhat mollified by the delicious odor of the saffron and the appearance of the dish itself, served on two great platters (Grandma Lowett's wedding china), added to which was a tray of cocktails with a cherry in the bottom of each (a maraschino cherry will soften the feminine heart wonderfully at times), the ladies gracefully accepted the situation.

The risotto with the white wine really was a great success. There were bounteous helpings for everybody and hardly enough left over for Mrs. Laughlin's Monday luncheon. (Mrs. L. used to do our laundering before the washing machine was acquired.)

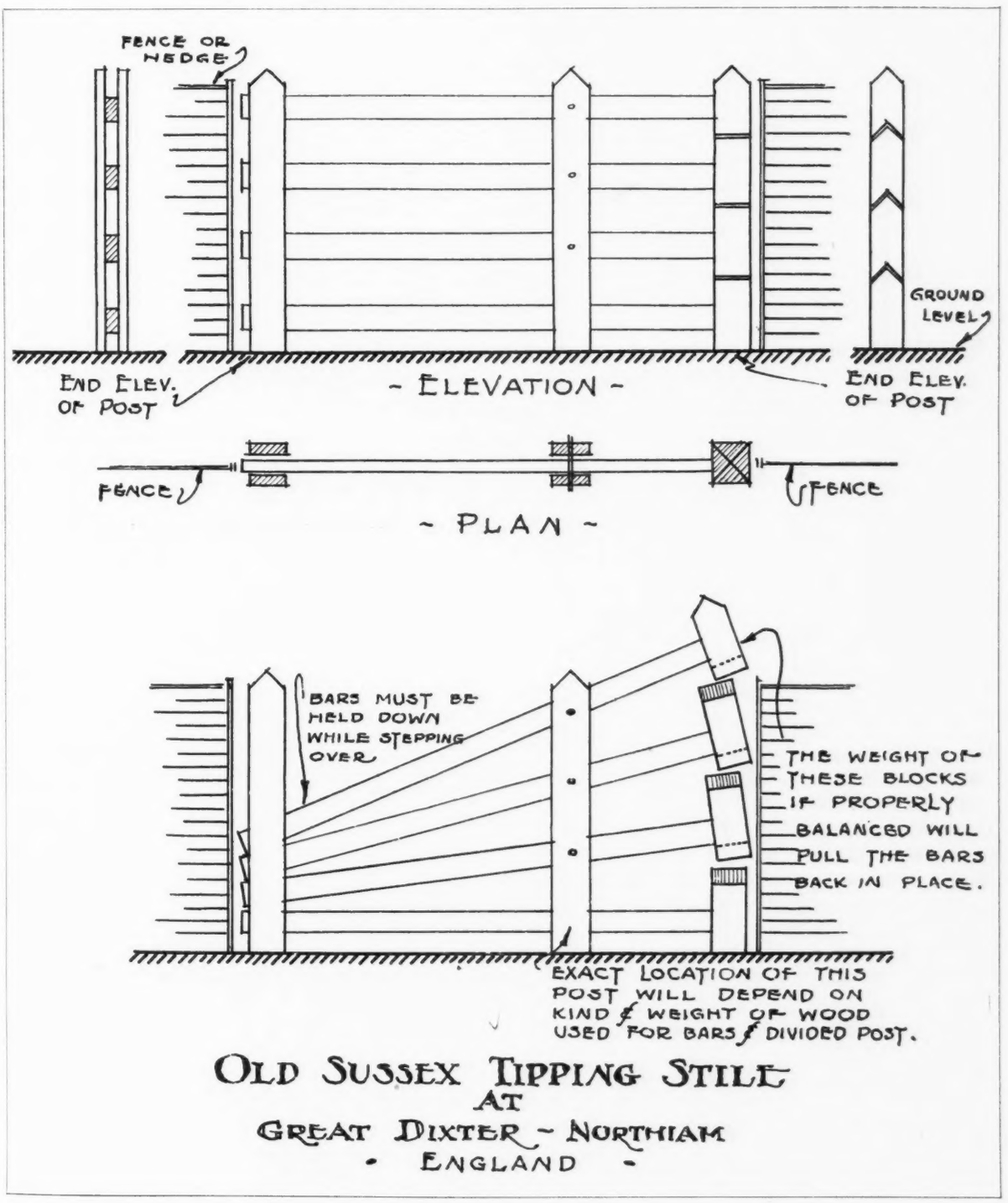
The next day when we told him about it, Eddie said, "You should have made the risotto before the company came, keeping it hot in a double boiler and adding the saffron just before going to the table. Italian rice is very hard and takes a long time when cooked slowly as it should be" which undoubtedly was a helpful suggestion.

Brillat-Savarin observes that nothing adds more to the enjoyment of polite conversation, than some little occupation, whatsoever it may be, particularly if it does not distract the attention too absorbedly. The making, during the "*moment crepusculaire*," of coffee or tea in the withdrawing room by the host or hostess, putting on the finishing touches to a bowl of punch, pouring out a tray of liqueurs, are familiar examples that will "jump to the eye." Speaking of punch, it may not be amiss to mention at this time a beverage that has received commendation in divers circles. Its *réclame* would be even greater, I'm sure, were its sterling qualities more generally known.

The Griswold Punch. Rub the outside peel of four large fresh lemons with one dozen lumps of sugar, one at a time, so as to extract somewhat the flavoring oils that nature has placed in the outer skin cells of the citrus fruit. This process should be followed in the making of all good punches. Cut the peel from four other lemons, each in one piece like a ring or spiral (as is done in making a "Horse's Neck"), and place the peels and sugar lumps in the bottom of the punch bowl. It's not a bad idea to rub the inside of the punch bowl with lemon and orange peel, the same principle as when one rubs a salad bowl with a clove of garlic before putting in the salad. Add the juice of one dozen sizeable Dominican limes; the juice of one can of Hawaiian pineapple—reserving the slices, which should be cut in about six sections each, for the final decoration; one medium size bottle of maraschino cherries, juice and all; and one large lump of ice, the equivalent in size of an eight-inch cube. Over this pour one bottle of Fokincks (I'm not sure about the spelling, but that's the way it's pronounced) Swedish Punch, and one gallon of Jamaica or Santa Cruz rum. Stir slowly, dipping the liquid in a ladle and pouring over the ice so as to chill thoroughly and blend the whole. Decorate with the pieces of the pineapple, and

with three or four large navel oranges sliced. When ready to serve, add twelve quart bottles of thoroughly chilled, sparkling, white grape juice. Mix this all together while your guests look on, place a goodly bunch of fresh young mint, the stems tied together, on top of the ice cake, and serve in glass cups. The above quantity is sufficient (within reason) for a party of twenty-five, and should last them about four hours.

Mr. Griswold, distinguished architect, connoisseur, and bon vivant, the inventor of this punch, tells me it is an old family recipe dating way back from July 1, 1919. I tried this recipe once at a meeting of the Men's Club, providing Scotch and soda for those who mightn't care for punch. The Scotch and soda went untasted, and while it was planned to bottle what remained of the punch for future use, there wasn't any left over. I harbor a candid suspicion, as that master stylist Edward Gibbon is wont to remark, that when the "Griswold Punch" is served, one may rest assured of the dignified acquiescence of the Lay Brethren.


FENCE OR HEDGE
GROUND LEVEL
END ELEV. OF POST
- ELEVATION -
END ELEV. OF POST
FENCE
FENCE
- PLAN -
BARS MUST BE HELD DOWN WHILE STEPPING OVER
THE WEIGHT OF THESE BLOCKS IF PROPERLY BALANCED WILL PULL THE BARS BACK IN PLACE.
EXACT LOCATION OF THIS POST WILL DEPEND ON KIND & WEIGHT OF WOOD USED FOR BARS & DIVIDED POST.
OLD SUSSEX TIPPING STILE
AT
GREAT DIXTER - NORTHIAM
- ENGLAND -

OLD TIPPING STILE—MEASURED AND DRAWN BY CAROL H. LAWRENCE

Figures and Finance for the Architect

By Robert Lee Henry, C. P. A., L. L. B.

Editor's Note:—*This is the fourth of a series of discussions by Mr. Henry, who is recognized as one of the foremost authorities on the financial phase of the architect's work. He will answer on this page hereafter, in addition to writing a regular monthly article, all questions where a Certified Public Accountant can be of assistance. Inquiries of this nature directed to Mr. Robert Lee Henry,* PENCIL POINTS, *330 West 42nd Street, New York City, will receive prompt reply.*

A number of PENCIL POINTS readers have begun a lengthy discussion regarding the answer to a question deemed of general interest printed on this page of the June, 1933, issue. For the benefit of those readers who did not read the June issue, the question and answer is reprinted here.

Question:—We have always been interested in the question of the proper method of applying overhead to the specific jobs. Granted that we have kept our overhead expenses down to what we now consider a minimum, what do you consider the best method of apportionment? To state our specific case briefly, we are equipped to handle a great deal more work than we have on hand and we are carrying some "old-timers" hoping for better days.

Answer:—In times like these you must be prepared to carry some of this overhead as part of your administrative expenses. You cannot expect the job cost account to absorb all of your overhead when you are carrying idle men.

This type of situation is one of the best illustrations in favor of the "time" basis of distributing overhead.

Briefly speaking, the time cards are added up and a distinction is made between productive time and nonproductive time. The total number of employment hours is divided into the total overhead and an hourly overhead rate is established. This hourly overhead rate is multiplied by the number of productive hours spent on each job and the job cost account is charged with the resultant amounts. The balance of overhead unabsorbed is charged against Administration Expenses.

To carry out this system it is necessary for principals to keep time-cards as well as draftsmen and others directly connected with productive work. Wherever possible, secretaries and clerical assistants should also keep time-cards as thus will the calculation increase in accuracy.

In considering the proper answer to this question, it was not the intent of the writer to convey an impression that only this method of overhead distribution could be used. As a matter of personal opinion, the intent was to point out that present-day conditions in the architectural profession required that a portion of the unapplied expenses (Overhead) should be borne by the operating firm and that the firm should not expect the various jobs to carry the entire load.

As a matter of fact there are numerous methods by which an architectural firm may distribute its general overhead. Before deciding upon one of the methods the firm must distinctly come to a decision on the all-important question of Administrative Overhead.

The term "Administrative Overhead" is applied to that portion of general overhead which the firm itself bears and which is not applied against any specific job but simply acts as an offset against profits.

Either of the following methods may then be used:

1. From the time cards a calculation is made to determine the total number of hours spent on all jobs and also the total hours of lost time not chargeable to any job. If the firm is to absorb a portion of the overhead, working time and lost time are added together. If the firm desires that the various jobs shall absorb the entire overhead, only working time is considered. The resulting time, either working time or working time plus lost time is then divided into the amount of unapplied overhead to determine an hourly overhead rate. The next step is to charge each job with its share of overhead, i.e., the number of hours employed on the job times the hourly rate.

A schedule apportioning overhead in accordance with this method would appear as follows: A state of facts has been assumed wherein the total overhead cost for the month amounted to $1,000; the total working time on all jobs 900 hours; the lost time 100 hours, and the firm is sharing in the overhead:

Total Working Hours	900
Total Lost Time	100
Total Employment Hours	1000

Hourly overhead cost ($1,000 ÷ 1000 hours) $1 per hour.

	Total	Job No. 1	Job No. 2	Job No. 3	Office
Hours	1000	300	200	400	100
Rate ($1.00)					
Portion of Overhead	$1000	$300	$200	$400	$100

2. This method considers the use of payroll dollars spent on each job and on lost time rather than the number of hours.

Having determined the actual amount spent on each job and for lost time the overhead is distributed in accordance with the relationship to the amount of payroll. Assume a state of facts wherein: (1) The firm does not absorb any of the overhead. (2) The total monthly payroll on jobs amounted to $1,500. (3) The monthly payroll for each job is set forth below. (4) The monthly overhead amounts to $750.

The schedule apportioning the overhead would be drawn as follows:

Overhead ÷ Payroll = Payroll overhead rate			
$750	$1500		50c
	Payroll	Rate	Share of Overhead
Job No. 1	$ 200	50c	$100
Job No. 2	1200	50c	600
Job No. 3	100	50c	50
	$1500		$750

Comparative Details—Group 11
Eaves and Gutters

Prepared for Pencil Points by Courtesy of the New York Architects' Emergency Unemployment Committee

Drawings by Emil Sesso from Data Supplied by the Architects

THE ARCHITECTS

whose details are shown on this and the succeeding pages are as follows:

DWIGHT JAMES BAUM
ROGER H. BULLARD
CAMERON CLARK
FRANK J. FORSTER
JULIUS GREGORY

DETAILS PREVIOUSLY PUBLISHED

Dormers October, 1932
Fences and Gates November, 1932
Radiator Enclosures December, 1932
Second Story Overhangs January, 1933
Fireplaces February, 1933
Door Hoods March, 1933
Chimneys April, 1933
Interior Woodwork May, 1933
Residence Bars June, 1933
Stone Textures July, 1933

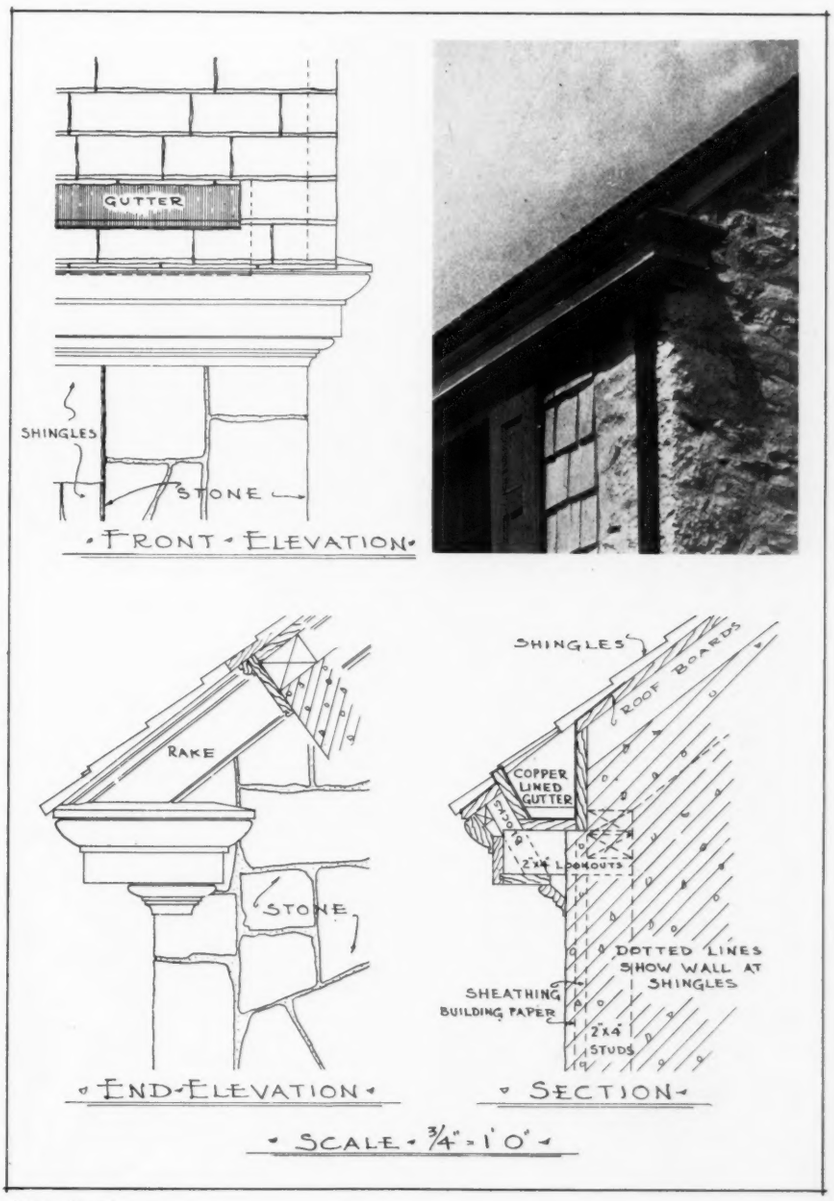
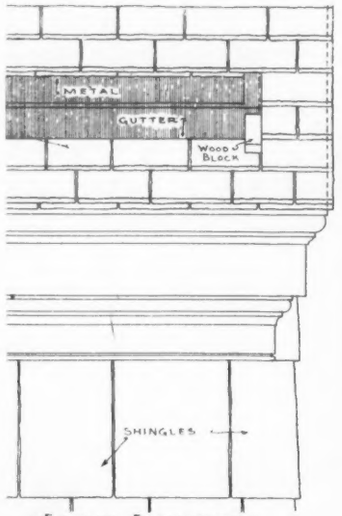
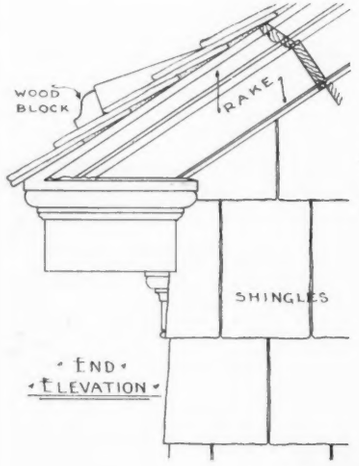
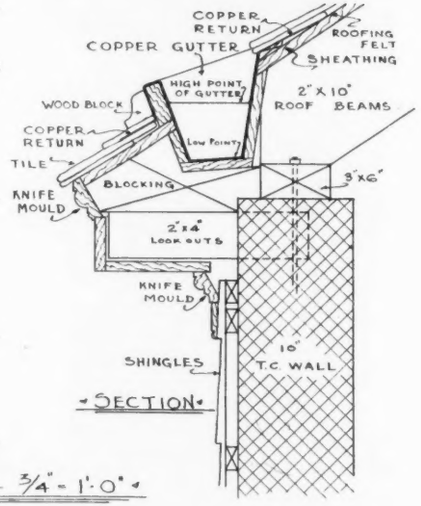


Photo by Glasgow

RESIDENCE OF ELIZABETH M. CAMPBELL, NEW CANAAN, CONNECTICUT
Frank J. Forster, Architect





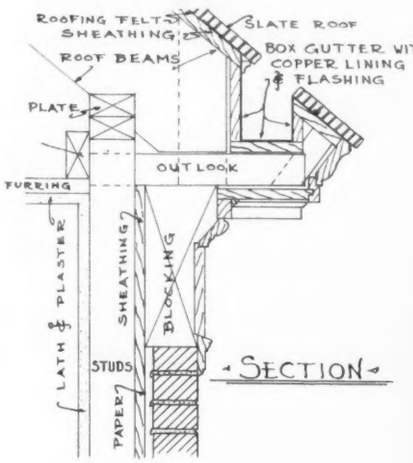


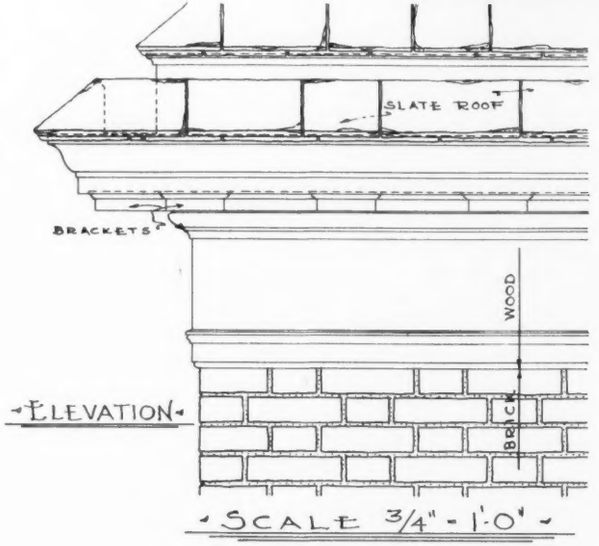
SCALE 3/4" - 1'-0"

Photo by Van Anda

OAKLAND GOLF CLUB, BAYSIDE, LONG ISLAND, NEW YORK

Roger H. Bullard, Architect





SCALE 3/4" - 1'-0"

Photo by Gillies

RESIDENCE OF HENRY C. BRIDGES, ESQ., TARBORO, NORTH CAROLINA

Dwight James Baum, Architect

Roger H. Bullard, Architect

Dwight James Baum, Architect

COMPARATIVE DETAILS—EAVES AND GUTTERS

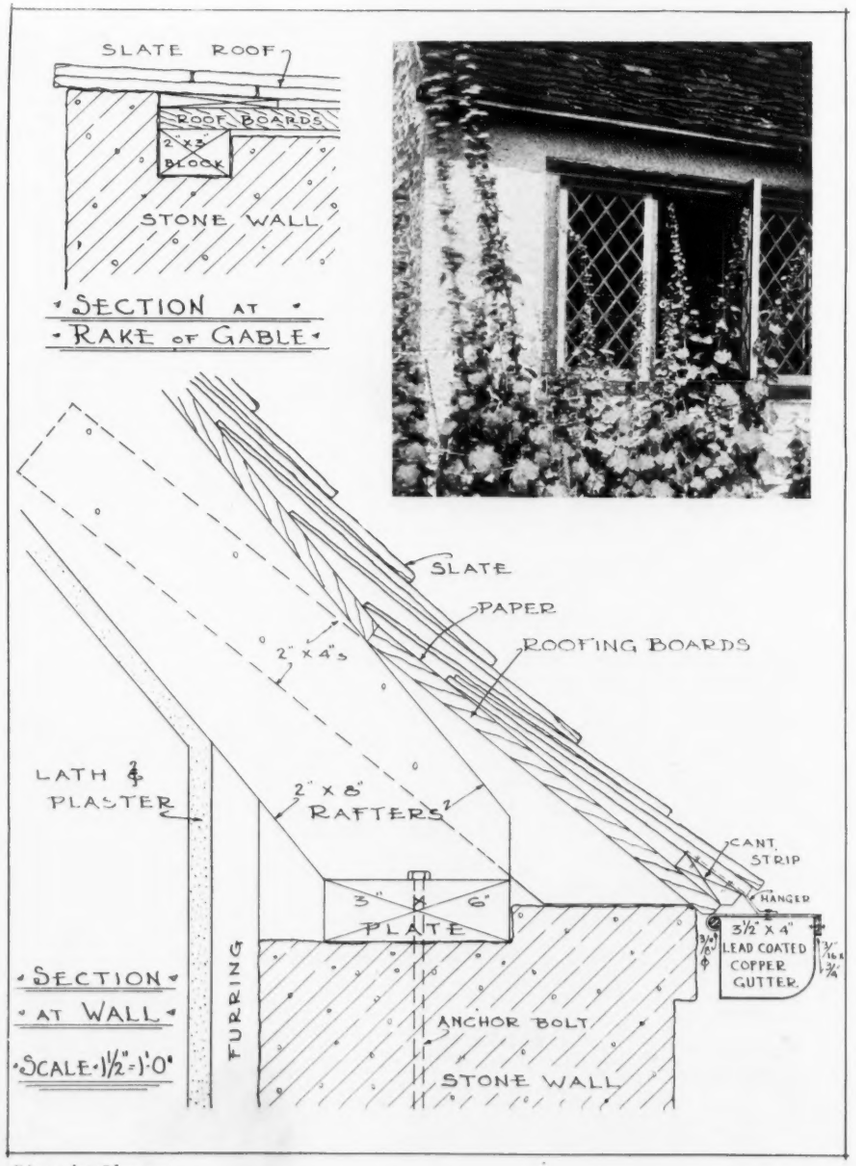


Photo by Glasgow

RESIDENCE FOR A. M. SWANK, ESQ., JOHNSTOWN, PENNSYLVANIA

Frank J. Forster, Architect

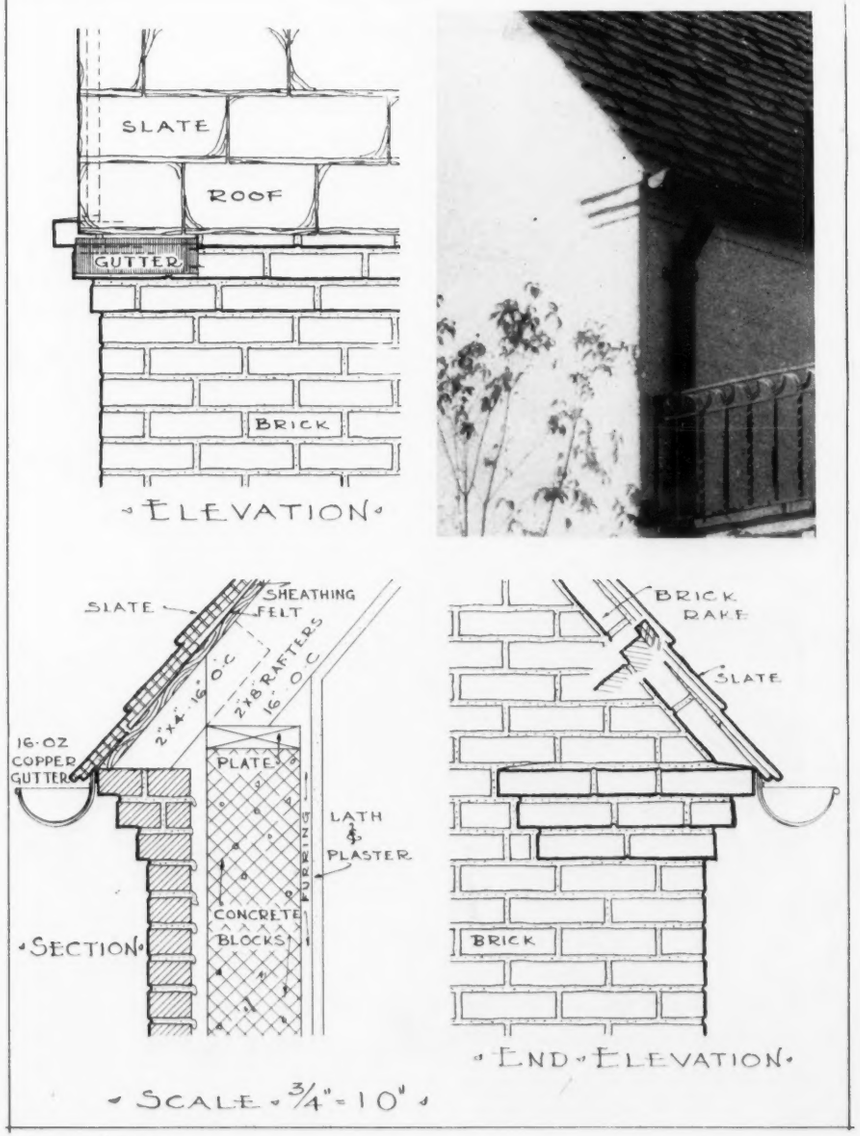
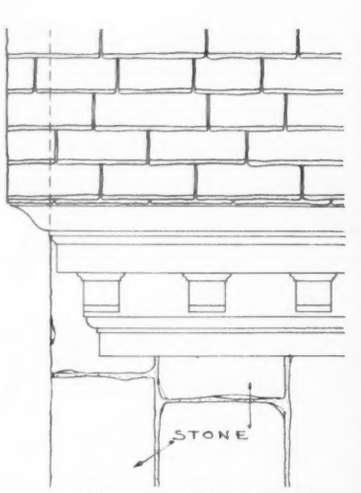


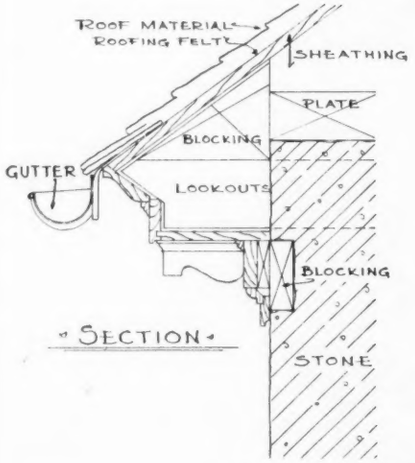
Photo by Gottscho

RESIDENCE FOR FRANK E. WILDER, ESQ., SOUND BEACH, CONNECTICUT

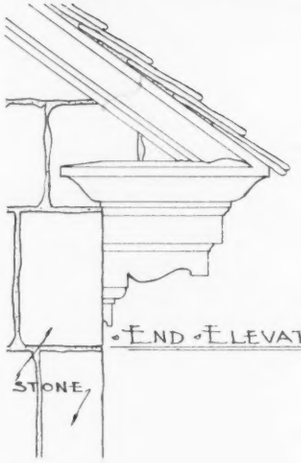
Julius Gregory, Architect



FRONT ELEVATION



SECTION



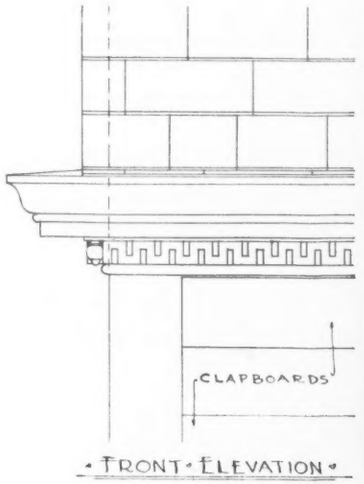
END ELEVATION

SCALE 3/4" = 1'0"

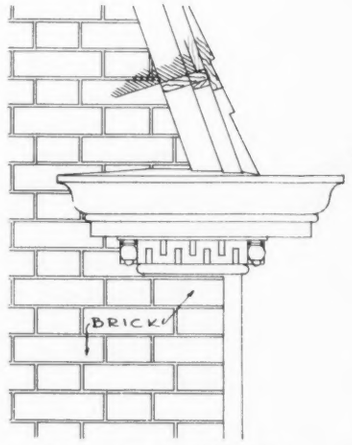
Photo by Gillies

RESIDENCE OF DR. L. DUNCAN BULKLEY, FIELDSTON, NEW YORK

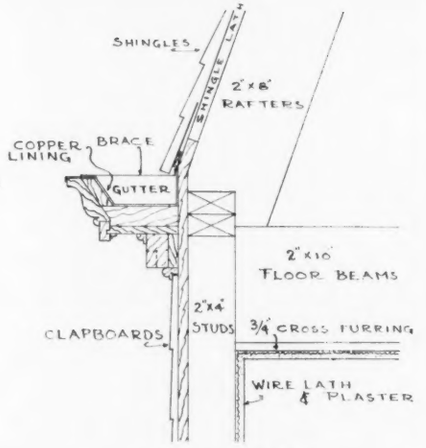
Dwight James Baum, Architect



FRONT ELEVATION



SIDE ELEVATION



SECTION

SCALE 3/4" = 1'0"

Photo by Van Anda

RESIDENCE OF C. K. SKINNER, ESQ., SOUTHPORT, CONNECTICUT

Cameron Clark, Architect

Dwight James Baum, Architect

Cameron Clark, Architect

COMPARATIVE DETAILS—EAVES AND GUTTERS

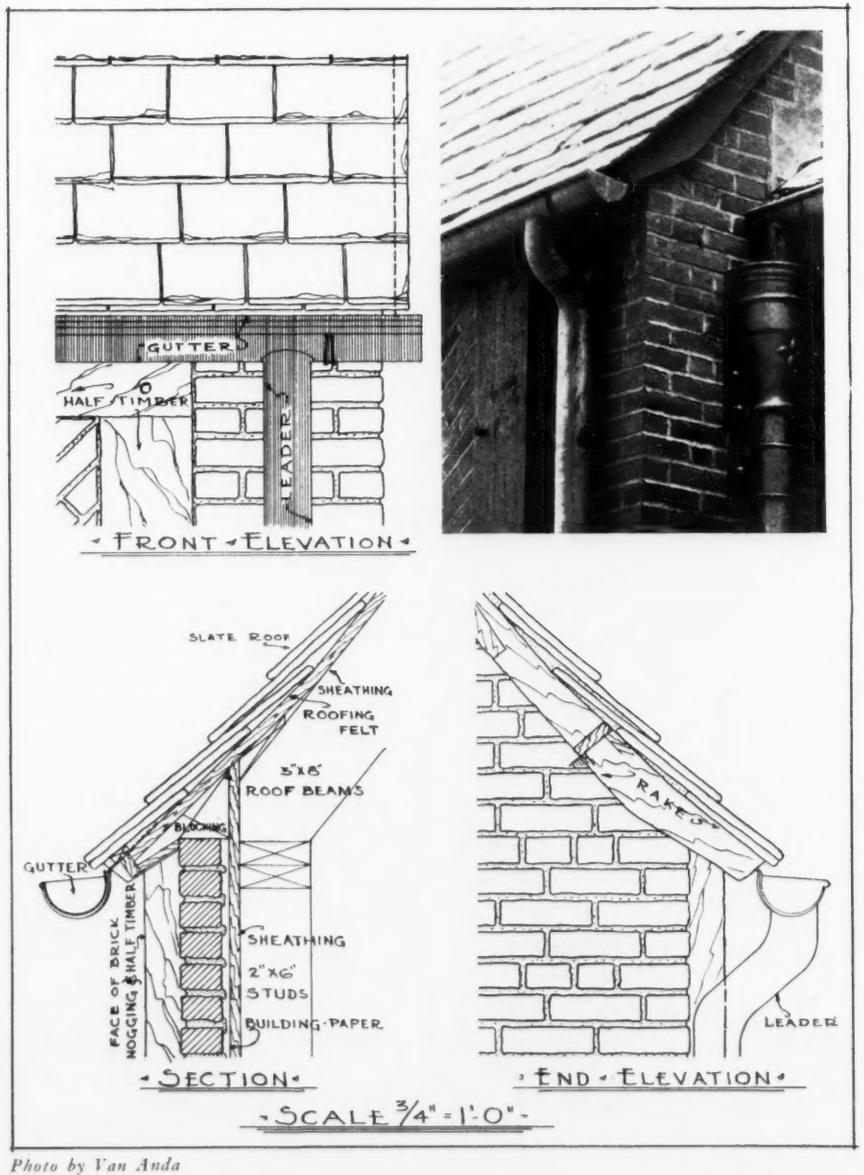


Photo by Van Anda

RESIDENCE OF HAROLD HARTSHORNE, ESQ., RUMSON, NEW JERSEY

Roger H. Bullard, Architect

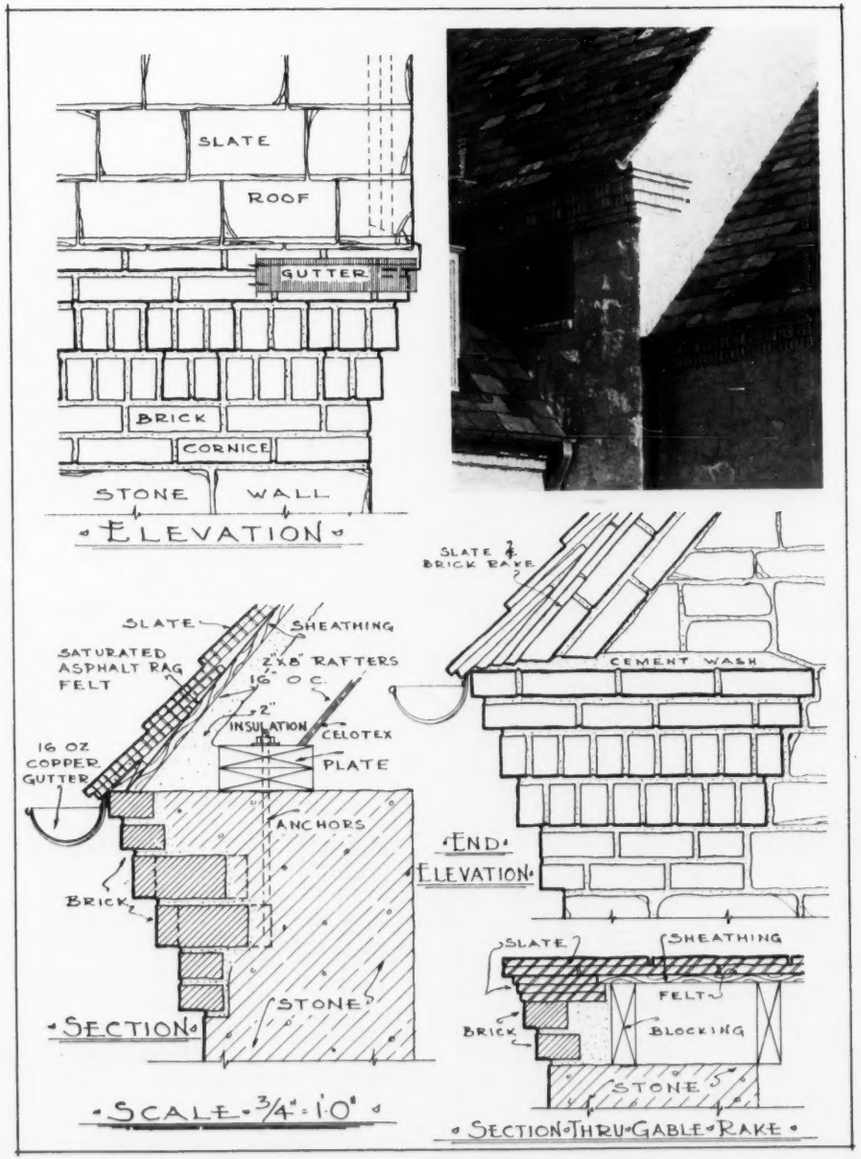


Photo by Gottscho

RESIDENCE FOR LOUIS WILPUTTE, ESQ., NEW ROCHELLE, NEW YORK

Julius Gregory, Architect

Unsung!

By Irving Coryell

> FEARLESS, SEDULOUS, PRESENTABLE; GENTLEMAN, 25, UNMARRIED, CHRISTIAN, DIVERSIFIED EXPERIENCE, SEEKS EMPLOYMENT; WILL DO THE USUAL OR UNUSUAL. BOX E241, TIMES.

The above advertisement actually appeared in the *New York Times* during the month of December, 1932. At the rate for ads published under the heading of "Public Notices" it cost $4.80, or more than fifty per cent of the fortune of the architectural draftsman who inserted it.

Those people who read this small advertisement in the *Times* did not realize that it had cost, comparatively speaking, so vast an amount; nor did they realize that the first word of the ad—fearless—was chosen or placed unconsciously. Yet the very fact that after long deliberation, this draftsman decided to risk half of his capital on a 700,000 to 1 shot, bespeaks courage of a high order. For this man knew how many meals $4.80 would buy, and how long it would enable him to maintain a decent standard of appearance, so that he might still try for the elusive thing called employment.

Yet the manifestation of courage in this instance is but an index of the spirit of the men who compose the architectural profession. They have, in the face of devastating situations, retained their sense of values, and their sense of humor. One is moved to speculate on the probability of a group of similarly trained men coming through an equally idle and unproductive period with an equal degree of equanimity.

It is doubtful if the members of any other profession or similar income group have been as severely reduced in circumstances as have the architects. We have never had in economic history such an extreme income decline. Put into terms of percentages it is almost unbelievable, and when contrasted with similar statistics for the laboring classes it is totally incomprehensible. On every side one hears of designers and draftsmen who formerly earned $75 to $150 a week working for $8 and $12, while the laborer who formerly earned $20 is now earning $12. Another interesting fact is that while one-quarter of the workers of the nation are idle, six-sevenths of the architectural men are idle.

Had conditions such as these been outlined five years ago, the prophecy would have been that the entire profession would have as a result been wiped out. Actually, nothing of the sort has happened. The morale of the group is gratifyingly high, the practice of architecture is still considered the finest way in which to spend one's life, and there is a distinct and genuine desire on the part of the men to mitigate the situations in which they find themselves by looking at the humorous side. They have pocketed their pride, but not their self-respect. They have smiled with a grim determination while doing the little tasks that can be more morale-crushing than a catastrophic happening. Or doesn't it take courage and determination to keep grinning while washing and ironing a dollar-and-a-quarter pair of trousers, while trying to sell typewriters to tenement children, or while taking turns at cutting a fellow-draftsman's hair?

This band of sensitive men, who are, by inclination and natural ability, craftsmen and creators, have displayed much more than courage. They have shown an ingeniousness and an inventiveness that, combined with the faculty of adapting themselves, has amazed all with whom they have come in contact. They have made their expenditures conform more nearly to their incomes, and they have created (and still are creating) opportunities by which to earn their livings. The methods employed by some show an originality that sparkles, by others an object lesson in psychology. Some have done the obvious in anything but an obvious manner, and in still others adversity has bred diversity. In the majority of cases, the architectural training has served at least as a starting point, and in several instances the hobby of the individual has been made to pay. These examples, catalogued, may be suggestive to some who are casting about for ways of chasing away the well-known wolf.

Model Making

Under this classification might be placed the story of the designer who has a penchant for the making of airplane models as decorative pieces. He had made a complete set of all of the well-known ships of aviation history as a hobby. He liked to do this work so well that he turned to it when his employment in architecture was terminated. At first, the going was rather slow, but he was able to support himself until the business became profitable. At present he makes and sells the models singly and has numerous repeat orders from customers who are collecting complete sets themselves, or who plan them as gifts to friends.

Another young architect has turned his attention to the making of models of the now famous "Blue Hawk" of the NRA. These he has sold to the better shops in his community for window display purposes.

"Inside Job"

Some designers and draftsmen have thought of the things which the average human being least likes to do, and have specialized in those things—for here, at least, the competition was less keen. One enterprising draftsman decided that packing one's personal belongings and household goods prior to a move was the bane of the existence of the family which, for one reason or another, had to move to a different house. He visited all of the moving companies in the city in which he lived and persuaded most of them to give him the names of those who made inquiries concern-

ing moving. He called on these people and estimated how much work it would be to pack all of the household goods, and made a price for the entire job. He has been more than ordinarily successful, and, at certain times when he is rushed, he employs other architectural men to assist him.

Business Getting

Two other draftsmen, late last fall, collected all of the samples of Christmas cards printed by the various concerns specializing in that work. A real estate operator who had several vacant stores let them display their wares. Here they took orders for cards, and as soon as enough capital had been acquired, had the lights turned on. With the next money they earned they put in a small selection of toys. By the time the Christmas holidays had passed they had a foothold secure enough so that they were able to maintain their store, which is operating today with a more complete line of stationery and toys.

A Case of 3.2

Another draftsman, who had a natural ability for working in oil colors, took advantage of the return of the beer gardens and sold several proprietors the idea of decorating the walls of their establishments with murals of an imaginative character. From this beginning, he has branched out into the field of interior decoration and has planned the furniture arrangement and decoration of flower shops, beauty parlors, and private apartments.

Rendering

The human quality of pride of possession was thought by a New York City designer to be an excellent point of attack. Armed with a camera he toured a well-to-do section of Long Island. Here he took detail photographs of the entrances to homes and, in some cases, of the entire house. These he had developed and printed, and from the prints he made pencil or pen-and-ink sketches of the doorways, or water color renderings of the entire house. He would then call during the evening at these homes and try to dispose of the sketches. If he was unable to sell the originals, he would suggest that Christmas cards be made from them. In this way he was able to sell the major portion of his work.

Babies, Just Babies

Along the same lines as above, a draftsman who is adept with pastels called on similar homes in another section where he would secure from each parent a photograph of the baby of the family. He took these snap-shots home and made large sized portraits of the heads in pastels. These he was able to sell in practically all cases, and he soon learned that the average young mother and father had, among their acquaintances, other parents, who, liking the work, desired to have portraits made of *their* youngsters.

Design Sources

One draftsman in a small New England city noticed, while walking down the main street of the town, that the windows of the smaller shops were poorly dressed. He was certain that he could do a much better job himself. Upon inquiry he learned that most of these shops could not afford a window trimmer, so he suggested that for a very nominal amount he would be glad to dress their windows once a week. He soon had a regular business established and, because of the friendship existing among shop owners, has been able to expand considerably.

Travel

Travel has lured several of the members of the profession. One chap managed to see all of the Mediterranean ports by working on a cruise steamer. Another, with a wide knowledge of European travel, secured a position in the tour planning department of one of the larger travel agencies.

Mystery Story

No listing of the misadventures of the draftsman, however superficial, would be complete without a mystery story. We take ours from New York, where one of the drafting fraternity answers an advertisement that called for a chauffeur to drive a private party to Chicago. He secured the position, and left immediately for the Windy City. His expenses were all paid, day by day, by the man who employed him. After spending several days in Chicago, his employer decided to return to New York. Upon arriving in a medium-sized city in Ohio, our hero was told to stop the car and wait. He waited and waited and waited. In fact, he waited so long that he could stand the inactivity no longer. So he put the car in gear and headed for New York alone. He drove the car until it ran out of gas, whereupon he left it on the road and hitch-hiked the balance of the way. Subsequent checking up on the address and name of the presumed car owner has been fruitless. He disappeared as completely as possible, and neither he nor the car has ever been heard from since.

Philosophy for Re-design for Living

Perhaps the best pair of sports of the lot are the young architect and his wife who were badly caught almost at the beginning of the depression. They talked the matter over, and decided that the best possible haven for them was in a wealthy home until conditions improved. They secured a berth as chauffeur-butler, and cook-maid in a home near New York. Although they are forced to get up at five in the morning and work until late at night, neither of them grumbles about it. They do their work in a spirit of fun . . . . and apparently it is agreeing with them.

Miscellanea

Even a few bits of the personal history of these young architects would bring to light many strange ways for highly trained technical men to be earning their livelihood. They have waited on tables at formal dinners; a couple of them built a house and raised enough vegetables to live on; one specializes in the grooming of fur coats; one gives art instruction; another paints furniture; and we find still another promoting public dances of a high calibre.

To the enterprising we wish good luck and a speedy return to their chosen profession. But all have not been so fortunate as to be able to keep their heads above water. Many have lived in an economic hell

for the last three years, an economic hell that will leave a scar for the balance of their lives. Perhaps one of the most touching of these near-tragic scenes took place in a relief agency in a town in one of the Middle Atlantic States. The man entered—tattered, dirty, clothes in shreds.

"I want to borrow a suit for tomorrow, and a pair of shoes," he said.

"We can't lend clothing," he was told.

"But I've got to have a suit."

"You'll have to make an application in the regular way, and after investigation you will receive the proper clothing."

"I won't hurt it. I'll bring it back tomorrow," he said.

"Can't you wait for a few days?" he was asked.

"No," he replied, "I can't wait." The man was visibly under a tremendous emotional strain, and the agency man tried to get the story out of him.

"What is it you want it for?"

"Do I have to give reasons? Can't you just lend it to me?"

The relief worker shook his head, and the battered one continued, "Shortly after I got married, I lost my position. We lived for a year on the money I had saved. We had a little boy, and that took the rest of the money. My wife had to go back to her family to live. They had no use for me, and I couldn't stay there. I was constantly taunted for not being able to support my own family. I tried to get work, any kind of work, but it was no use. And I kept getting shabbier and shabbier, until . . . well, you see me now. I can't go to their house looking like this, and I've *got* to go tomorrow. You see, they're burying my baby then."

* * * *

All of these incidents, from the ridiculous that seems almost a burlesque of real life to the tragic, have in common a strong strain of valor. Nearly all of the men to whom these and many more things have happened have showed a gallantry and a nobility of character that makes one proud to be associated with them. Many new viewpoints have been formulated; many new ideas in architecture are being weighed during the period of inactivity that is now rapidly drawing to a close. And to these men who have displayed such fortitude and ingenuity and balance we may well leave the future of architecture in this country.

"CITY HALL PARK"—FROM A LITHOGRAPH BY ALEXANDER Z. KRUSE

The Twenty-Sixth Paris Prize

By Lloyd Morgan

Editor's Note:—*This year's Paris Prize was most unusual, in that the winners of the first three places were all pupils of one patron, Lloyd Morgan. In view of this circumstance we thought it would be interesting to our readers to present, with the winning designs, some comments by Mr. Morgan, whose record in preparing men for success in major student competitions during the past six or seven years has been so phenomenally consistent that he might fairly be considered an authority.*

It may be well, right at the outset of this discussion to meet the criticisms of the Paris Prize competition expressed by some practicing architects by emphasizing the fact that it is strictly a student's *projet*. It is done in ten weeks—six weeks for study and four weeks *en loge*. The *logists* are the same men the day they finish as they were the day they started, except that they have done one more big *projet* and that the winner goes to Paris to continue his studies. While it is the most advanced plan problem given to American students it is hardly fair to judge the program or the resulting designs from exactly the standpoint of the experienced practitioner. Nevertheless, in the solutions of Paris Prize problems there are many points that can be studied with profit by practicing architects since the intensity with which the *logists* attack the solution of the plan compares favorably with the approach to a real job and great ingenuity is shown.

This year's program, written by Arthur Ware, shows a complete understanding of these facts and might in this respect set a precedent for future programs. He made it general, leaving something for the student to develop, and did not try to catch the student with any ambiguities or technicalities. Furthermore, the jury consisted of mature men who understood the true meaning of H. C. and did not look for the finals to be exact copies of the 36-hour sketch.

I was naturally gratified to find my three *protegés* successful in reaching the finals with three different *partis* which made the study much more interesting than if they had all struck upon the same *parti*. It was obvious at the beginning that, having three *projets* to criticize, some definite attack was necessary so the men were all started with the same amount of data. Trips to Philadelphia and Washington were made and information on the Mint and the Bureau of Engraving was collected and studied. Requirements for the other three units—Board Building, Auditorium, and Museum—were also studied in detail immediately.

Each *projet* was started with the Mint as it was required to occupy about one third the area of the lot. The other units grew out of their requirements and were not simply "blown up for a fake composition." The buildings connected together by necessity and were not so arranged for a picture or a trick.

My three men, having had thorough training in doing twenty-four-hour problems, were well prepared to handle their studies and could, after a severe criticism, get a new idea down quickly. As a result of this ability, each man had made several studies in plan before the entire working of the *projet* was decided.

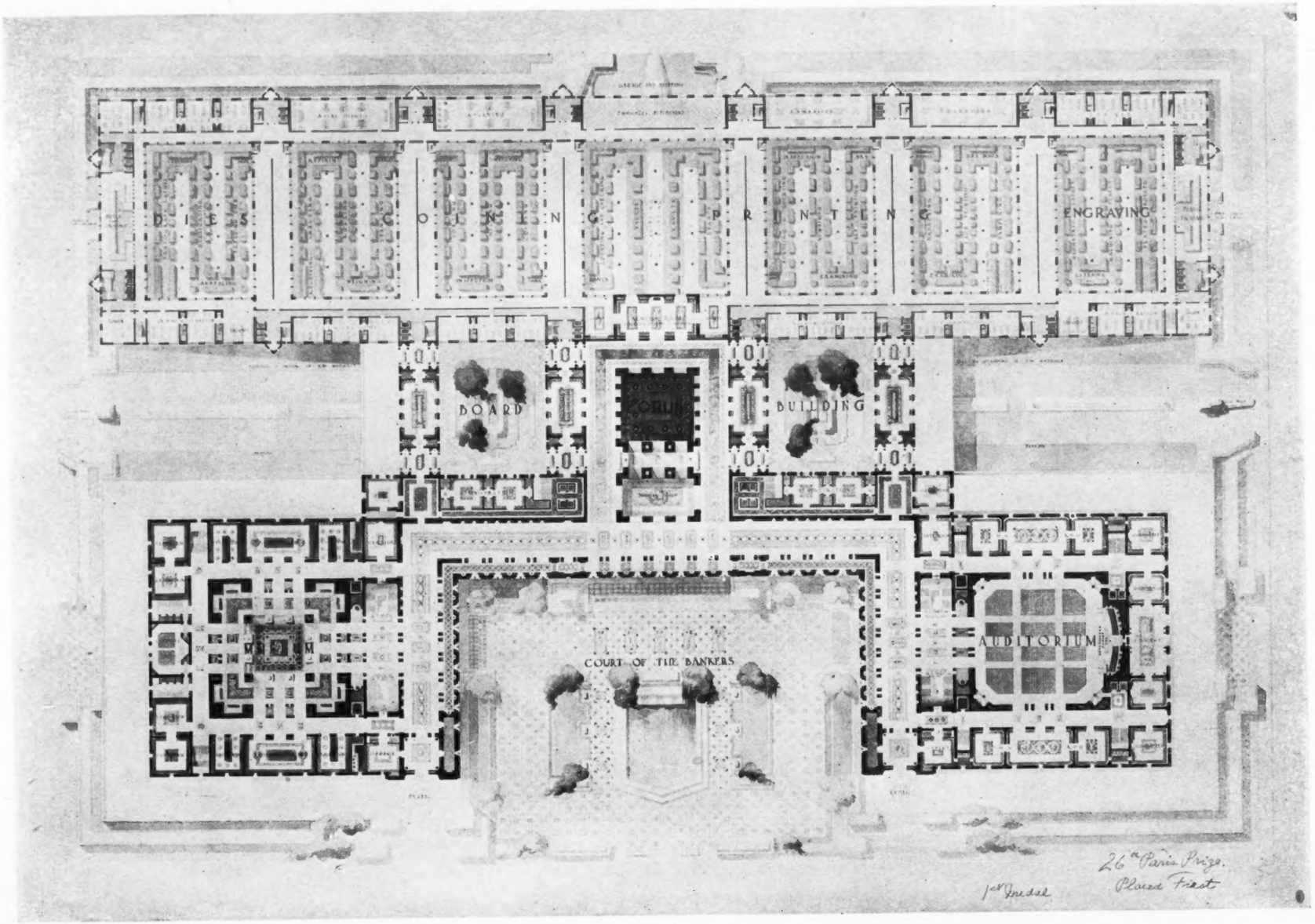
On account of the limited time given, it was necessary to push the plans hard so that the men could all go *en loge* with studies at half the final scale—the detail first, the façade second, the plan third and the section last. This procedure eliminated a bad charette.

The Mint, naturally, had a different character than the other four units and they in themselves had their own individual expression. Inasmuch as the Mint had offices above, a smaller column spacing was used, resulting in a lighter *poché*. The other units, having larger spans, gave a heavier *poché*. I suggest that our critics on too heavy *poché* refer to American Competitions and study the use of furring as exemplified there. Look, for instance, at the New York Court House Competition, where, it seems to me, there is some pretty heavy *poché* in evidence. In considering this point, critics will do well to realize that these men in the Paris Prize have six weeks to study and four weeks to draw up their ideas whereas, in the usual American Competition, the practicing architect has six months to study and the winner two years to get his design on cloth—with plenty of furring.

In all of these *projets* the façades were the outgrowth of the plan and distinctly did not dictate to the plan—the section always guiding the *projet*, being internal.

As for the drawings themselves, the *loges* were bigger and therefore better this year, giving more room to handle the larger sizes called for. The increase in size of the drawings and their being placed on chassis was a great improvement. Any man really prepared could easily handle them, though, to hear some students talk, one might get the idea that they would like to submit their drawings on postage stamps and declaim their *projets* to a jury instead of using normal-sized sheets which talk for themselves. In my opinion every change the Committee adopted this year helped to make the Paris Prize a better spirited exercise.

Some of the competitors, at the beginning, complained against the use of air brush, pastel, cut-outs, *Encre de Poncer*, etc., and these were barred. I had decided a year ago that if I had *logists* I would advise them to render in wash as simply as possible and without tricks so the restrictions had little effect on my men who were trained in all mediums of presentation. One student suggested, however, that next year each man be given one brush with one hair in it and a very



PLAN OF WINNING DESIGN FOR "A NATIONAL BANKING BOARD," BY GEORGE FREI—NEW YORK UNIVERSITY, PUPIL OF LLOYD MORGAN

COMPETITION FOR THE 26TH PARIS PRIZE OF THE SOCIETY OF BEAUX-ARTS ARCHITECTS

small bottle of ground ink and that he be required to go to Sunday School each week.

Any man preparing for the Paris Prize should master the twenty-four-hour problem as do the French. In this way he learns not alone to handle his plan but gains the ability to make many studies on his finals. This is a great French idea—to make a new study after each criticism until the student has "arrived"—and constitutes the true virtue of the twenty-four-hour.

Frei's success lies in the fact that from the very beginning of his training he was a real *student*. He was not in a hurry to get through with each problem but followed it carefully, step by step. He "niggered" at every possible opportunity and had worked on two former Paris Prizes. This experience, naturally, was a great asset.

Waldorf and Gnerre have also been trained along the same lines and have "niggered" on Paris Prizes. They were therefore well able to handle their *projets* which speak for them as real students.

A *Grand Prix* or a Paris Prize is not child's play and it may surprise you to learn that as much hard work, study, and effort is required here as in any competition in the so-called "practical" field. Any *Grand Prix* or Paris Prize can be pulled apart, but did you ever try to put one together?

In closing this part of the discussion, I want to give a few pertinent tips to men preparing themselves for the Paris Prize. (1) Work. (2) Analyze the "24-hours" and do plenty of them; this means the study of plan. (3) Do plenty of "36-hours" which is just more plan. (4) Do not use the *Concours* plates of the French school to copy from—study them. M. Laloux, in criticizing his *Grand Prix* men, discouraged this but suggested that they study only things already built. (5) Render as simply as possible; this sounds easy but is not. (6) Do simple *poché* that means something—not a mass of dots and dashes. (7) Use mosaic *if it means something*. (8) More thinking—fewer lines.

THE PROGRAM

The program for the 26th Paris Prize Competition called for the design of "A National Banking Board," a subject suggested by the serious banking and general financial crisis through which the country passed shortly before it was written. It was assumed by the committee that the National Government had come to realize the importance to the Nation of the "creation, at the earliest possible moment, of a National Board of Control of all Banks, Mortgage Companies, Stock and Commodity Exchanges, etc., throughout the country."

The assumption was made that the necessary legislation was passed, authorizing the establishment of a Board of 100 members, to meet at stated intervals, and an Executive Committee of 21 members to be in session at all times. Frequent conventions of bankers and other financiers were to be taken care of and a large establishment for the engraving of bonds together with a Mint and a Museum of Coins and Medals were to be included.

The site was given as facing a wide Avenue with less important avenues on the other three sides. It was to be level, rectangular, and not to exceed 800 feet by 1200 feet. Either side of the lot could face the Avenue.

The composition was to include (1) The Board Building, (2) The Auditorium, (3) The Museum, and (4) The Mint and Engraving Works.

The Board Building was to be monumental and was to house the Chairman and Members of the Executive Committee—each one to have a suite of offices and facilities. It was also to include a living apartment for the Chairman, a small Auditorium for Board meetings to seat 150 persons, a Board Room to seat 25 with anterooms, single offices for the 79 members not on the Executive Committee, a Public Reception Room and Administration Offices of the Superintendent of Buildings, a Restaurant or Banquet Hall for the Board with accessories, and all other necessary dependencies.

The Auditorium for large conventions was to seat 3000 on the ground floor and 100 visitors in galleries; Stage to accommodate 200. In connection with the auditorium were to be 8 or 10 committee rooms to seat 50, two or three of them to seat 100, as well as all the usual dependencies. Circulation was to be very liberal with a large monumental entrance lobby and vestibule with stairs to a large Foyer. A Banquet Hall with all accessory services was also called for.

The Museum was to exhibit paper money, bonds, coins, etc., and could be on one or more floors. There were to be liberal dependencies for public use, a Curator's Suite, a small Lecture Hall, and, in the basement, a small Public Restaurant, Vaults, Guards' Quarters, etc.

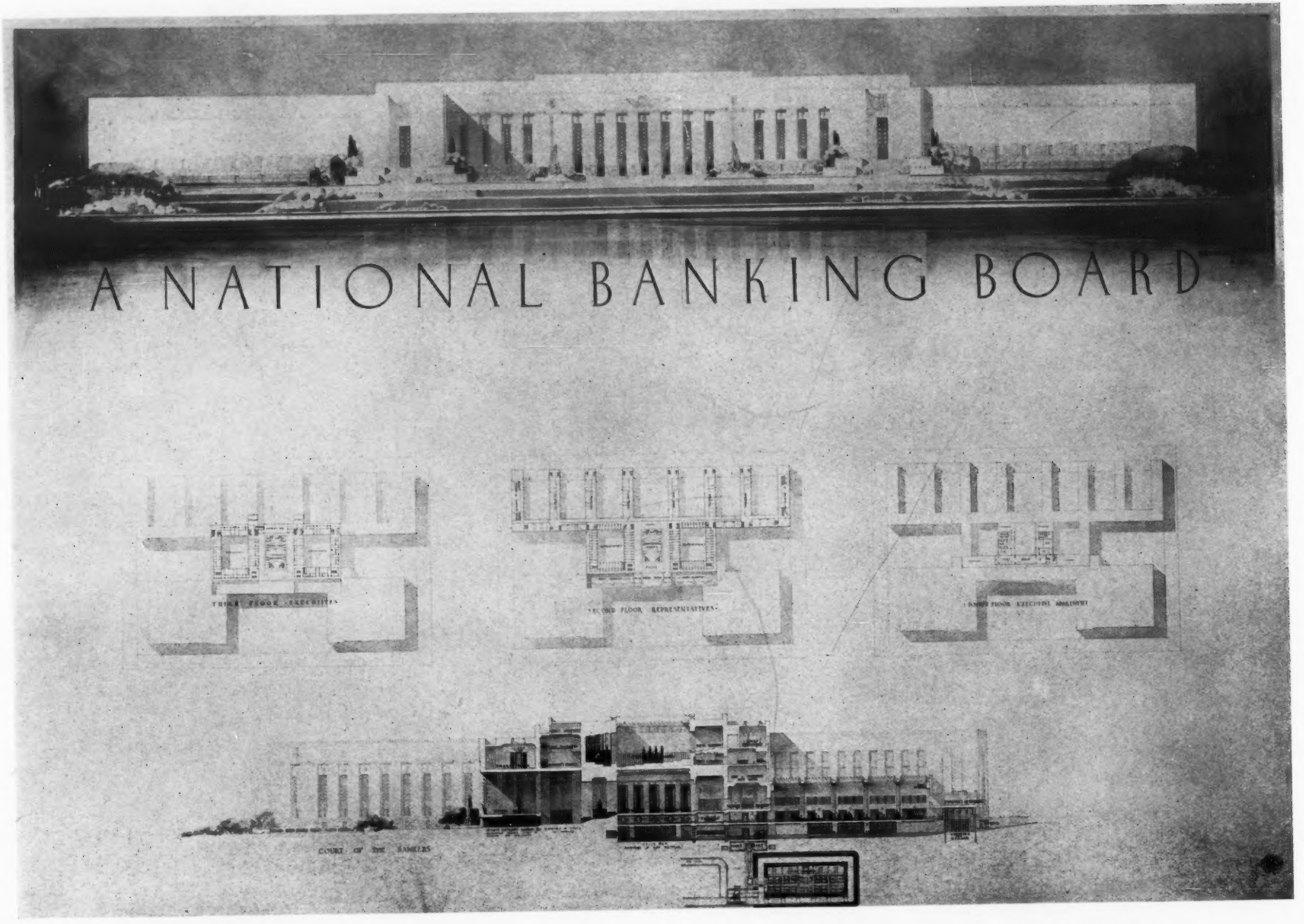
The Mint and Engraving Works was to be dignified yet to express its practical use through its architectural treatment. Visitors' Balconies were to be provided for the various departments. Other requirements included Administrative Offices, Receiving and Shipping Departments, Storage Vaults, Employees' Rest Rooms and Lockers, Guards' Living Quarters, Employees' Inspection Rooms, Employees' Dining Room to seat 300, Garage for 20 armored cars, etc. The area to be covered by this plant was to be about one third of the property.

The Jury of Award consisted of: Joseph H. Freedlander, Chairman; Arthur Ware, Ely Jacques Kahn, Chester H. Aldrich, Louis Ayres, John W. Cross, Electus D. Litchfield, Henry Richardson Shepley, Egerton Swartwout.

An informal report on the judgment by Arthur Ware comments on the drawings submitted as being the best in many years. All of the eight *projets* in the finals showed careful study and were thoroughly well arrived.

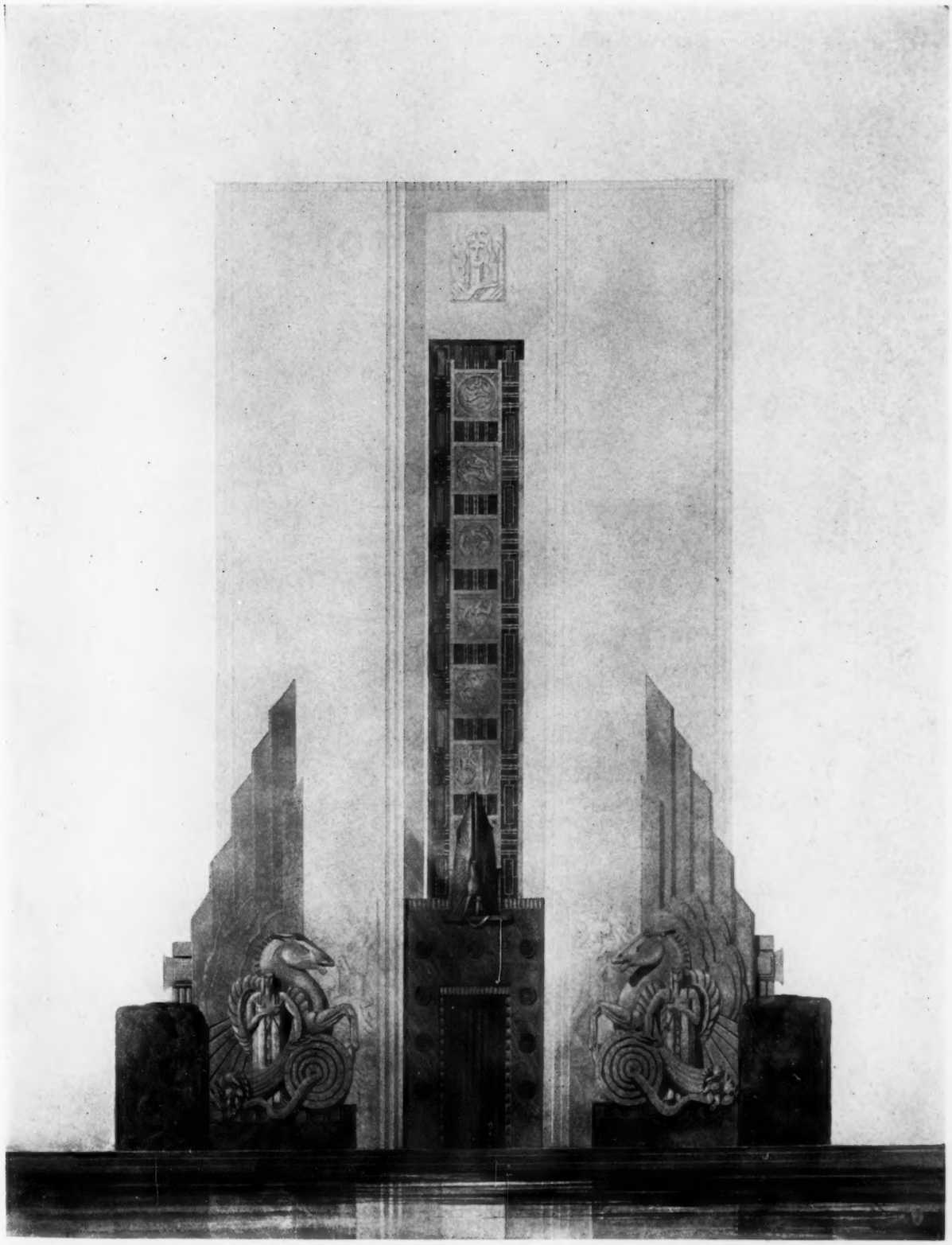
Of the winning design, which was chosen unanimously, Mr. Ware said, "This plan was an admirable solution of the program, the building for the Banking Board being placed on the principal axis, the Museum and Auditorium buildings flanking either side of the Court of Honor, with the Mint and Engraving Plant at the rear of the property, well expressed and occupying the proper area in relation to the entire plan. The plan read easily, the circulation was liberal and direct, all parts of the plan were carefully studied and the entire presentation of plans, elevation, section, and detail were equally well arrived."

In addition to complimenting the second and third prize designs the jury awarded Fourth place and First Medal to L. W. Smith of Princeton, Pupil of Jean Labatut and recommended that the students placed second, third, and fourth be given the additional scholarship, without the purse, which would admit them to the First Class of the Ecole des Beaux Arts.



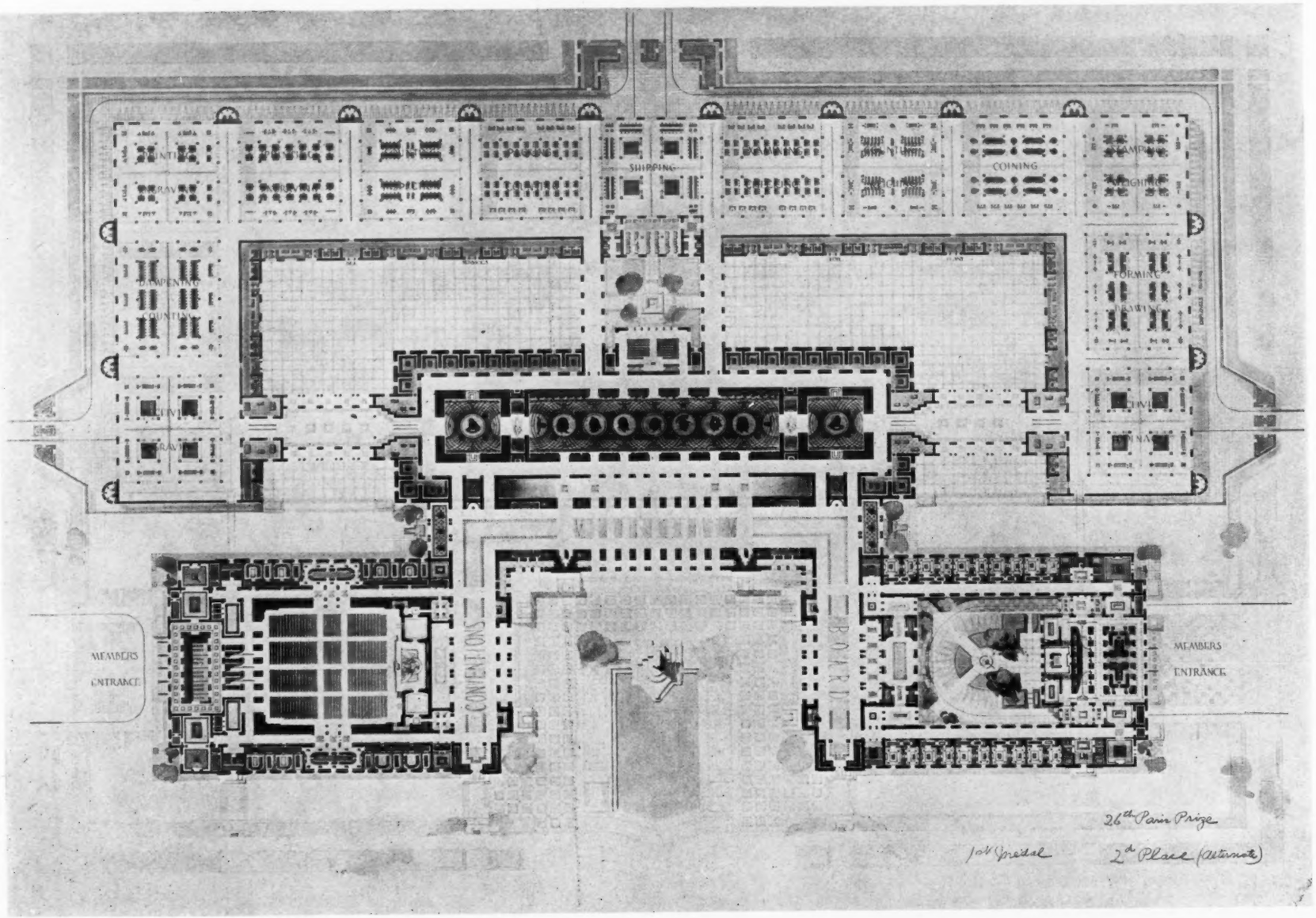
ELEVATION AND SECTION, WINNING DESIGN FOR "A NATIONAL BANKING BOARD IN WASHINGTON," BY GEORGE FREI

ENTERED FROM NEW YORK UNIVERSITY, PUPIL OF LLOYD MORGAN IN THE COMPETITION FOR THE 26TH PARIS PRIZE OF THE SOCIETY OF BEAUX-ARTS ARCHITECTS



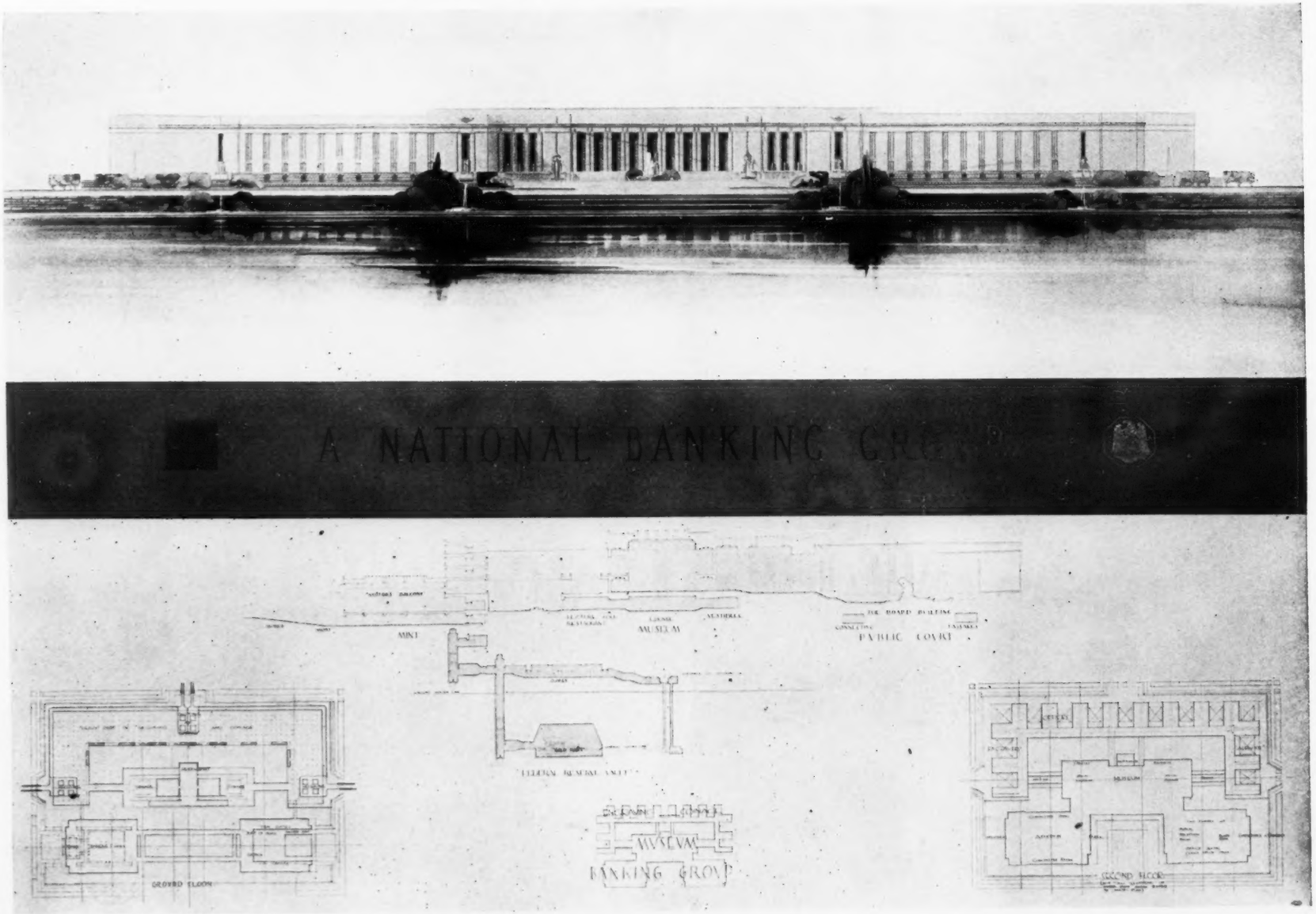
DETAIL, WINNING DESIGN FOR "A NATIONAL BANKING BOARD IN WASHINGTON," BY GEORGE FREI

COMPETITION FOR THE 26TH PARIS PRIZE OF THE SOCIETY OF BEAUX-ARTS ARCHITECTS



PLAN, SECOND PRIZE DESIGN FOR "A NATIONAL BANKING BOARD," BY ADRIAN WALDORF—NEW YORK UNIVERSITY, PUPIL OF LLOYD MORGAN

COMPETITION FOR THE 26TH PARIS PRIZE OF THE SOCIETY OF BEAUX-ARTS ARCHITECTS



ELEVATION AND SECTION, SECOND PRIZE DESIGN FOR "A NATIONAL BANKING BOARD IN WASHINGTON," BY ADRIAN WALDORF

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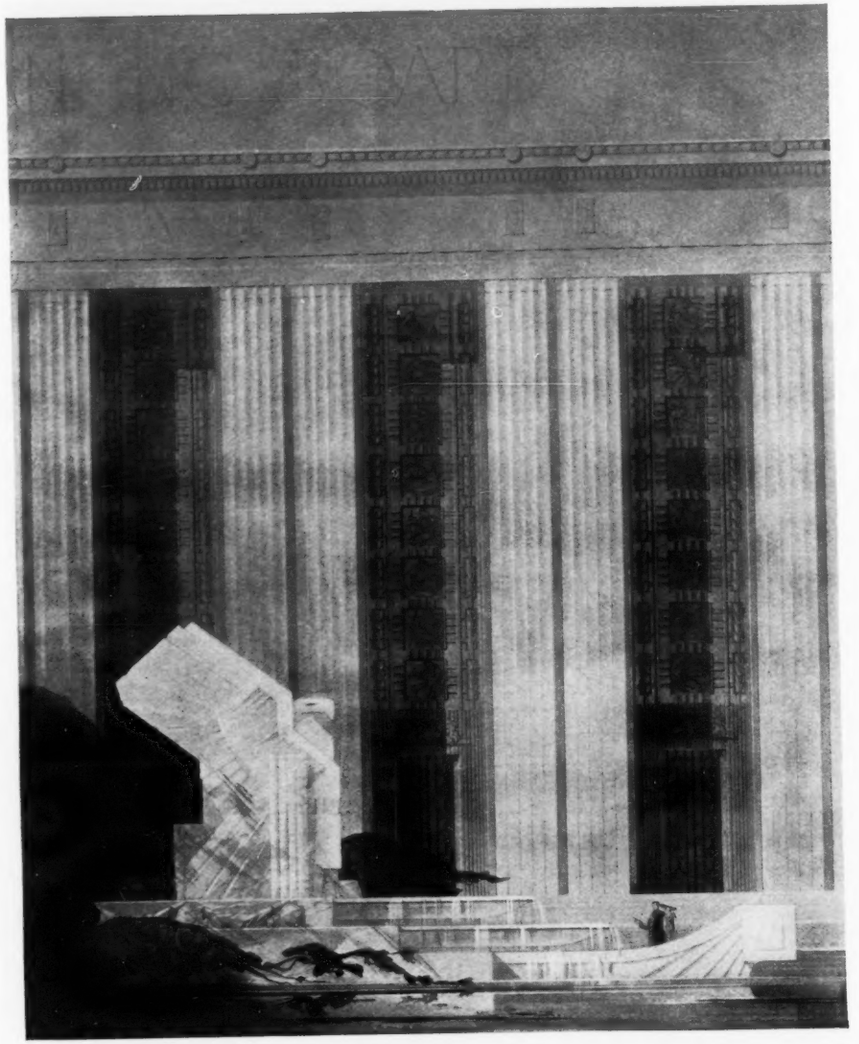
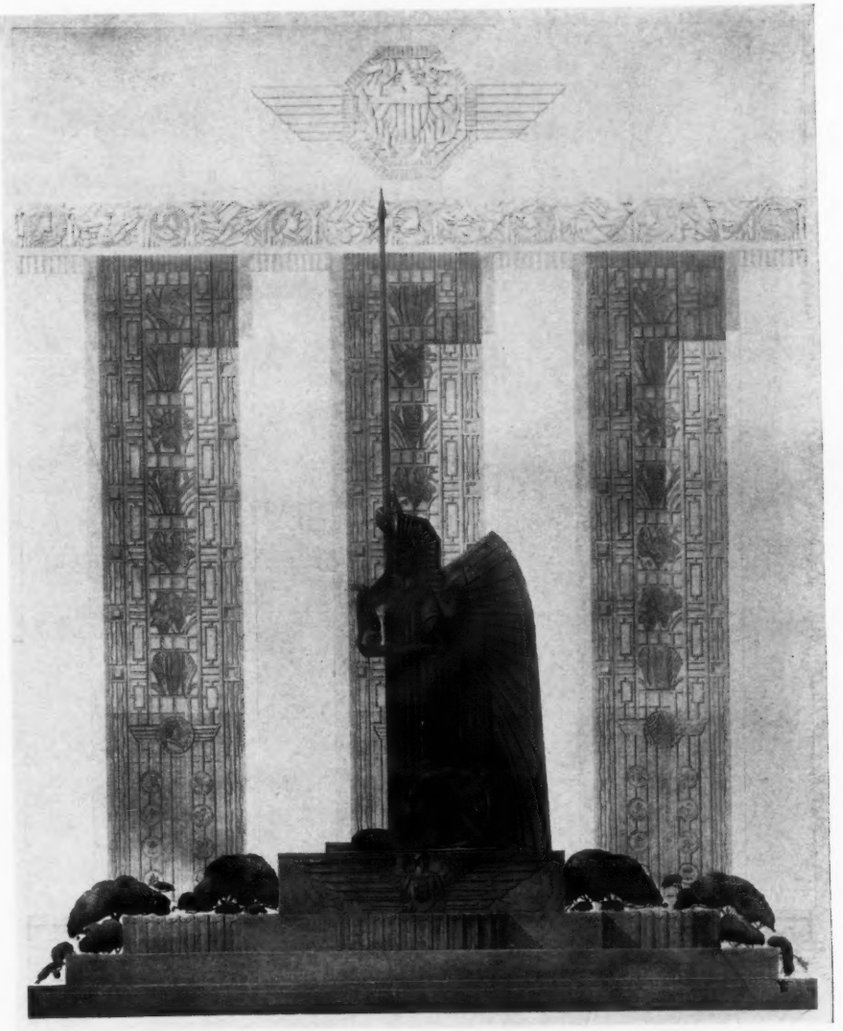
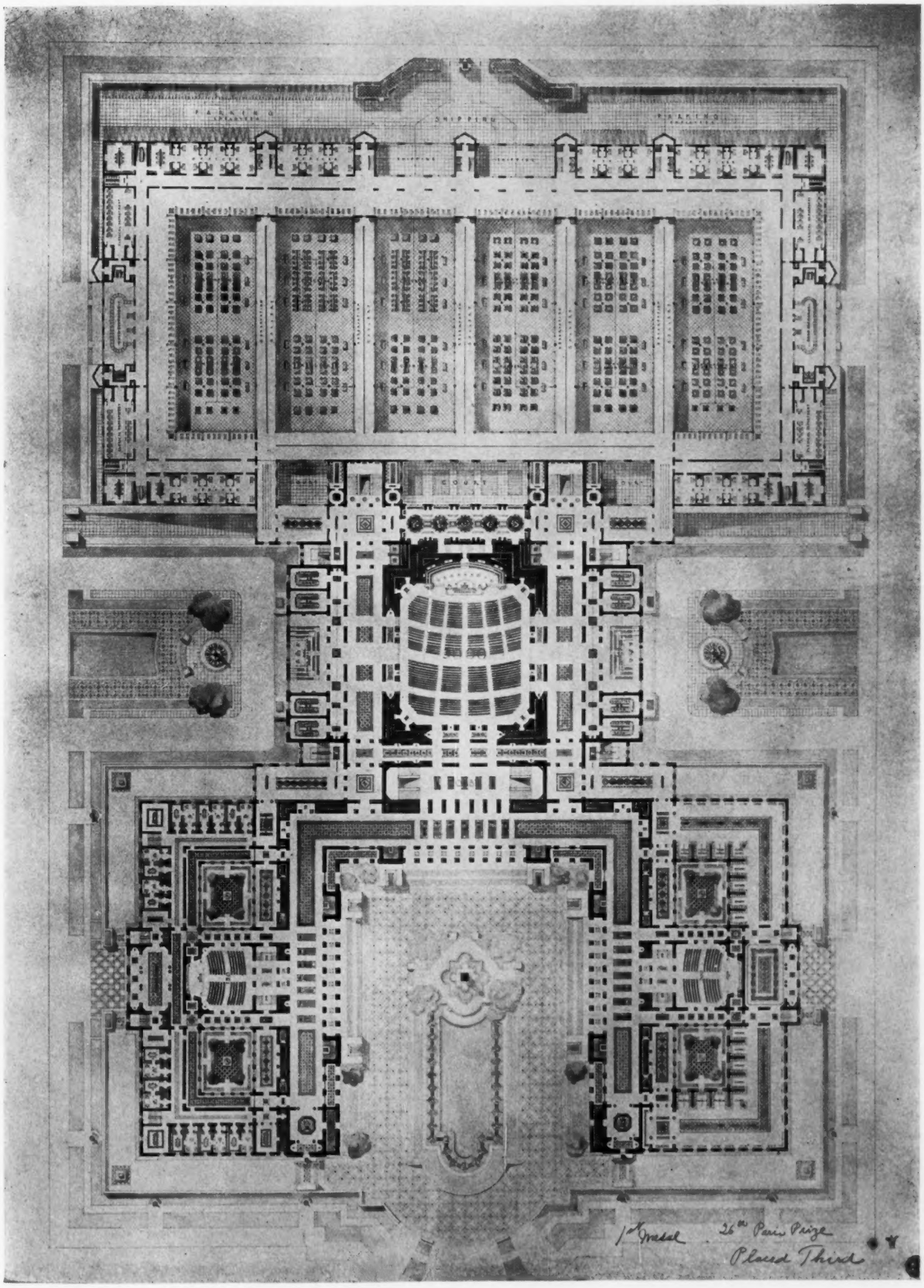


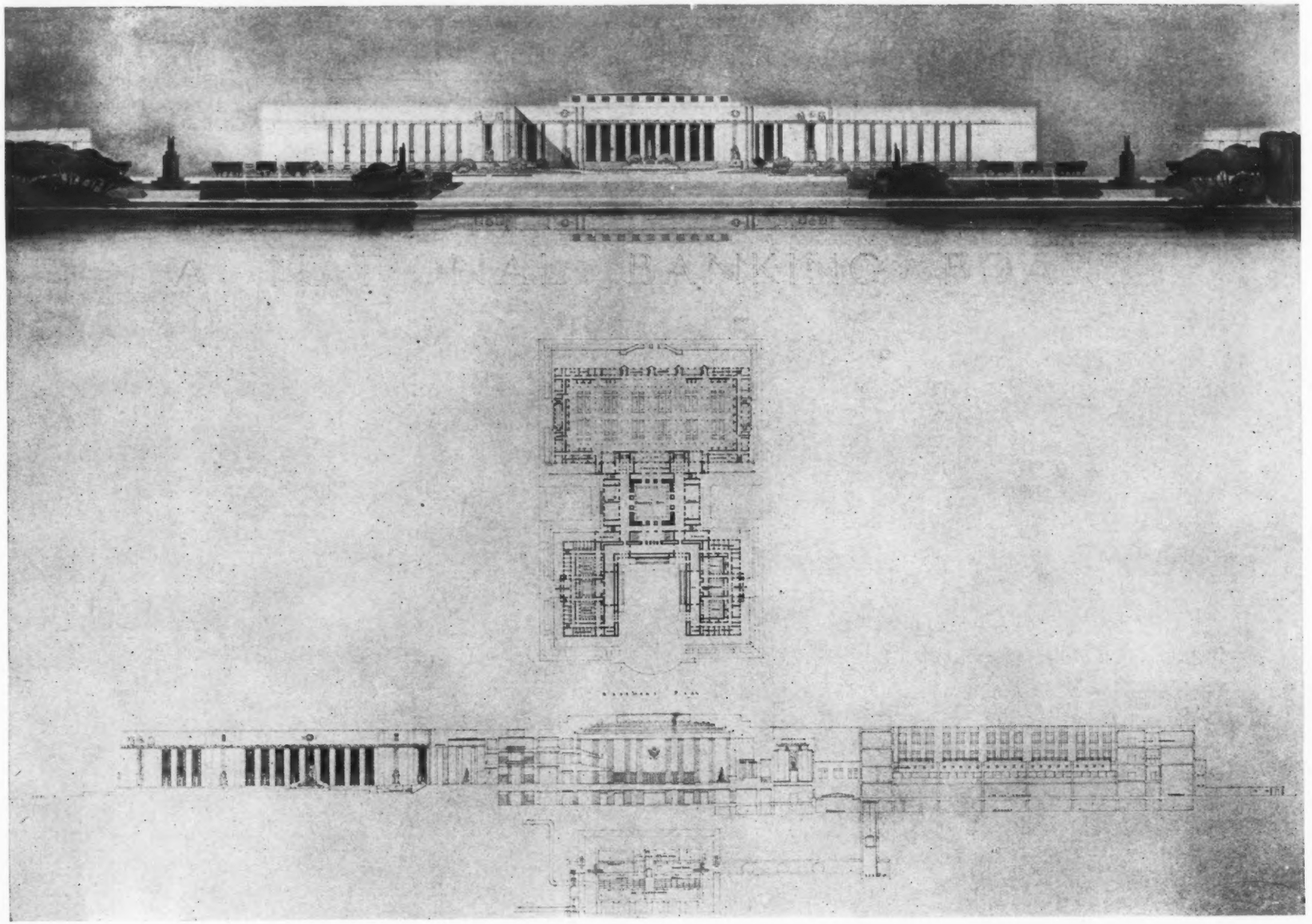
DETAIL OF SECOND PRIZE DESIGN BY ADRIAN WALDORF
"A NATIONAL BANKING BOARD IN WASHINGTON"



DETAIL OF THIRD PRIZE DESIGN BY H. GNERRE
COMPETITION FOR THE 26TH PARIS PRIZE



PLAN, THIRD PRIZE, "A NATIONAL BANKING BOARD," BY H. GNERRE—N.Y.A.C., PUPIL OF LLOYD MORGAN
COMPETITION FOR THE 26TH PARIS PRIZE OF THE SOCIETY OF BEAUX-ARTS ARCHITECTS



ELEVATION AND SECTION, THIRD PRIZE DESIGN FOR "A NATIONAL BANKING BOARD," BY H. GNERRE

ENTERED FROM NEW YORK ARCHITECTURAL CLUB, PUPIL OF LLOYD MORGAN IN THE COMPETITION FOR THE 26TH PARIS PRIZE OF THE SOCIETY OF BEAUX-ARTS ARCHITECTS

Dr. Eugene Gustave Steinhof

A Forerunner in Architectural Education

By Ellis F. Lawrence

DR. EUGENE G. STEINHOF
Pencil portrait by the author

The education of architects and artists has of late been receiving much attention and no little criticism. Educators are making concessions to the so-called modern movement. New experiments have been undertaken at home and abroad, and have caused much debate. The psychologist is coming more and more into the picture as he comes to understand the mysteries of personality. The Art world is looking for creative genius and truthful self-expression, rather than brilliant technique. A period of seeking for elemental essentials is here. Old methodology, challenged, is on the defensive.

Although the Bauhaus of Walter Gropius is closed by the Nazis, Frank Lloyd Wright throws down the gauntlet to the Beaux-Arts Institute in his newly organized Talliesin Fellowship.

Among the leaders in the new approach is Dr. Eugene Steinhof of Vienna, who has been lecturing and teaching in this country during the past year. It was the writer's privilege to be associated with Dr. Steinhof during the summer of 1932, in the Carnegie Art Center at the University of Oregon, conducted by the Committee on Education of the American Institute of Architects, from a grant made by the Carnegie Corporation. Therefore, what is written here comes from personal observations and contacts.

This all-too-short article is attempted in the belief that there are those with open minds who seek new paths for architectural education and who perhaps see danger in our highly competitive methods, a suppression of the creative urge in our super-courses in technique, a failure to humanize and socialize our training. If it interests such enough to make them wish to know and understand more of Dr. Steinhof's work, that what is sound in it may find its way into our system, then it will have served its purpose.

Dr. Steinhof, associate of Hoffman and Czech, came to America under the auspices of the Institute of International Education. Their literature tells us that he is an architect, sculptor, artist, stage designer, and educator. Educated at the University of Vienna, the Sorbonne in Paris, and the Academy of Arts in Vienna, he has been Director of the National School of Decorative Art in Vienna since 1923. His record is imposing. He served in 1926 as the Austrian member of the International Jury of the League of Nations at Geneva, which made the award in the competition for the plans of the Palace of Nations. That same year he organized the Exposition of French Modern Art in Vienna, for which he was made a Knight of the Legion of Honor.

He acted as official interpreter of the International Congress of the Theatre in Paris in 1928. The following year he spent much time in South America at the Universities of Montevideo, Buenos Aires, Cordoba, San Paolo, and the Academy of the Fine Arts of Rio de Janeiro, as a result of which he was made honorary professor at the University of Montevideo and received many other honors.

Among the books he has written, which should interest architects especially, is "The Problem of Space in Architecture, Sculpture and Painting." He received the Gold Medal for Stage Decoration at the 1930 International at Barcelona. Much more could be written of the achievements of this versatile man, but more pertinent to this article are his philosophy of teaching and his personality.

He is a kindly, well-groomed man, with ready courtesy and much tolerance. He readily wins confidence and friends. He is positive, but tactful and wise. He is not controversial, but gives assurance of deep convictions. Widely traveled and a keen observer, he is a rare conversationalist. He is well informed and a deep student of men and world affairs. His is a ready wit. One of his gifts, if not the outstanding one, is an understanding of human nature and a respect for every individuality as the divine gift. It is this which makes him a conscientious teacher while his ripe knowledge and his profound humanity make him, also, a noteworthy and inspirational teacher.

One of the members of the staff at Oregon wrote, recently, the following:

"I cannot emphasize too greatly the impression which I received from Steinhof. I had the fortune to hear five of his lectures before I went in July. Now I can see that he has left his mark and something important and vital added to the attitude of drawing, modeling and the industrial arts. Certainly he was a stirring, warm, human, clear-visioned intellect. I think his coming was timely. It was in many ways a delineation of modern creative art aims, dissociated from schools and isms, a philosophy of simplicity so simple that it was profound—and in many ways it confirmed and clarified aims and attitudes of past experience and set them in order and in light. I was able to trace creative impulses from my own childhood—things which I had vaguely understood, aversions, desires, obstacles. I was glad to come in contact with my childhood again, glad to return to a new naturalism and to see his antipathy for eclecticism in a society deserving to release and crystallize its own art impulses."

Yes, like so many simple truths, those elucidated by Steinhof are profound and basic. He makes articulate and understandable what many of the more progressive of our educators have been feeling. He carries one back into simple, childlike self-expression, untrammeled and

unspoilt by too much knowledge and technical skill. He sees this creative urge as the basis of Art expression. Once he frees his student from inhibition and restraint, leads him to the fountain of eternal youth, experiences with him the joy of Art, then, and only then, does he stress technique or introduce historical knowledge. He reverses existing processes in education, which give technique and theory before application. If he values this gift of the creative urge most highly, he also recognizes that, depending on the artist's culture and skill and his ability to express clearly the essence of his own times, his work is shallow or deep, legible or illegible, plagiarism or real art.

Art to Dr. Steinhof "is no longer a question of taste alone. Art is the encounter; on the one hand, with a world philosophy; on the other, with the intellectual and material necessities of mankind—making use of that material by which the artist wishes to bring all this before our eyes and make it apparent to our senses. All the complexities of endowment which are necessary for that, go to the formation of the artist's talent. And these endowments are partly the will to create, partly the psychic qualities of the artist, partly his own individuality." To this individuality, he pays great attention. He sees its three component parts as "The Inner World, always modified by the Outer World and by the Racial Mixture." It is interesting to know that he has a profound faith in the individuality of American youth.

He says, "We must know what we need, for that which has come down to us and lies before our eyes, is absolute confusion"; and again, "Therefore, it is necessary that those of us who feel called upon to pave the way to Art for our generation with enthusiasm, clarity and a firm hand, should not follow along lost trails, nor conceive of art as an individualistic dream. We must rather determine firmly and with clear intellect, what our creative artistic needs demand, needs which correspond with our times and with our generation."

This indicates pointedly that while the individual is the medium of art expression, he cannot be separated from the now and here, if Art of the time is to be vital.

He asks, "How do we attain our own styles?" and answers, "Not to confuse æsthetics with life; and to teach this. Not to confuse art instruction with Art, and to teach this. The starting point is the goal and the object itself and its organization by its space, its surface, and its color. The former æsthetic teaching traced the underlying principle of art from a technic to an idea. In contrast to this, the modern teaching develops: (1) from the object to its organization: (2) from the idea of the object to its representation in the material."

The above quotations are from an address made by Dr. Steinhof, called, "The History of Art and of Decoration in the Light of Psychology," given January 28th, 1932, to the New York Regional Art Council.

This does not adequately express the depth of Dr. Steinhof's ideals of Art, by any means, but it at least introduces us to it. His working philosophy, tied closely to psychology, develops unto a series of clarifying precepts. These will be brought out as his methodology is discussed.

To him, one of the "greatest evils" in our present system of education, is the way History of Art is taught. He does not believe in the historical, chronological, and ethnological approach for the artist. Rather should the modern artist ask of the artist of old—"What were you? What did you want to accomplish? What have you accomplished?" "It is this that will make one creative artists of all times; that will clarify the ways and means and mysteries of Art; that will create a proper sense of values."

In his own words, his aim in teaching history of art, is as follows:

"1. It should show the relation of the philosophy of life, the world philosophy of a certain epoch, with the expression of its specific forms in art.
2. It should show the connection of epoch with psyche; the interpretation of individuality, modified by epoch.
3. It should reveal the creative elements in the forms of art of the various epochs of art.
4. It should point out the connection between the different forms of art and the creative tools."

So he stimulates creative power and determines the imperishable "Constants of Truth," rather than stresses mere æsthetic appreciation or chronology. He blames the way Art History is now taught for the "open scandal of copying architectural styles of the past and present." He does not formalize the teaching of history, an occasional lecture perhaps, but rather it comes along the way. He applies history to existing problems, with discussions of material, of tools, and of results.

Copying nature, the model, or the cast is to him a dampening of the ardor of the designer, and creative self-expression. When he uses a living model, it is a moving model. Faulty proportions, if they are truly interpretive, are to be preferred to academic correctness. Mood is more important than the reality. Nudity may be purity itself, or grossly vulgar in its realism. As to color, it is more a matter of the limitations of pigments than it is the color chart; more a question of space and surface, and more a question of warmth and coolness. Quality of line gives way to the meaning of line, as enclosing space. Building up surface as enclosing space is his form of modeling. Ornament is not "stuck on" to cover nakedness. Rather, it becomes the inspiring record of the souls of men. It is a matter of "personal rhythms," but never separated from the material employed. Technical knowledge is given to the student purposely, by practical means and practical suggestions only. It is a by-product of the method of experimentation, the doing of the thing, the building of the object. By association, that psychological gift develops an artistic faculty. "Everything that has been acquired by the method has become a personal experience; therefore, it remains deeply rooted in the student's mind." Steinhof's conception of the Art School (and what Art School is complete without Architecture) is based only on creative values. "It should have an artistic atmosphere which raises the level of the mediocre talent." He sees it as "center of the intellectual future of the nation."

In short, once objectives are fixed, then the problem is subjected to the standards of a fundamental psychological approach in teaching methods, rather than the one-sided development of the student's talent alone. The artist developing in tune with his times becomes the functionalist, never the eclectic and the romanticist. It is personality which modern education should seek to discover and free.

Before going further into the application of his theories to the special field of architecture, it is well to mention two phases of his methodology which apply to all the plastic arts. Line must not be divorced from its primal purpose of defining space. The student, with powdered charcoal on tips of the forefingers of both left and right hands, draws simultaneously upward as the plant grows, making spontaneously a designed enclosed space. The

reading of these student records, some interestingly akin to Oriental patterns, becomes to Dr. Steinhof an open book of traits, character, and ability. He is almost uncanny in the accuracy of his deductions. These drawings were, to him, documents which paved the way to an understanding of each individuality, its strength and its weakness. They divulged not only space and design sense, but showed positiveness or vacillation, frivolity or conservatism, sincerity or uncertainty. Following this are studies in black and white, and cut-outs.

Then comes the clay—used at first as enveloping surface of space, the building-up process, working from the inside to the outside. Hollow vases or vessels are made from the base upward (a method he applies also to the human figure). Here was presented the effect of light and shade with all its subtle gradations.

Certainly from many photographs of his students' work, it may be seen that marvelous results are secured. Two years of such creative work brings a startling development. Only the genius comes through our system with such unadulterated, uncontaminated artistry. We think we have done a good job if we get such results from him in four or five years. It is another proof of the wisdom of using the creative urge as the basic motivation of our art training and experimentation as the vehicle to which can be almost casually applied, technical and even cultural content.

To Dr. Steinhof, architecture cannot longer hide behind mere adaptation of the old to the new, because of new technic in traffic, lighting, manufacture of new building materials, and, above all, the new social philosophy and mode of living. Education must change accordingly. The student must find "the artistic emotion within himself; he must learn to visualize it *without the verbal* assistance of an intermediary."

Briefly, summarizing from Dr. Steinhof's "set-up" of an ideal school of Architecture, we find his basic premise and the steps in this educational process, about as follows:

Architecture becomes an art when its organization "is worked out in the sense of the practical, the intellectual, and the emotional requirements of life, as suggested by the constructive idea; material requirements are those which, by means of building, comply with the practical necessities of living. Intellectual requirements seek the expression of the cultural level. Emotional requirements are of all sorts; a feeling of comfort, pleasantness, etc. They progress to the artistic expression of an ideal, and finally reach the expression of a world philosophy."

Only from the combination of SPACE, COLOR and SURFACE can Architecture become an Art.

Space creates the "Wohngefuhl," the sense of habitation in our living rooms, for example. It springs from the internal. The architect must by "outward expression" record our actual space feeling.

Surface is "outward expression of plasticity." It is "the encounter of the building mass with the outer world." It is "the outward expression of the inner feeling of man."

"Color as an artistic means, enables the observer to experience space and represents the appearance of the building in light. If color is wrong, we obtain wrong space impressions."

"Space feeling" takes for granted knowledge of "space figuration." Both "can be acquired by exercises."

Every experiment, every exercise, is approached from "interior to exterior," from "inside to outside." Surface is no longer "casual design of decorated surface, but is the shell covering the global inner space of structure."

As a first step, "the student is promoted to the rank of an artist or an architect. He becomes absorbed in architecture as an art and studies the technics of structure as a science." He observes Nature (crystals, etc.). He studies rooms. He sets up movable walls of light material and studies the effect, the feeling of proportion. Then comes the creative experience by way of transparent models of cellophane plates. He feels "stimulated," understands well what is expected of him, and "recognizes the goal as an attainable one."

"The student must be taught the architectural surface—(1) its appearance in light, (2) its general plastic movement, (3) its plastic ornamentation. The vase in clay is used for the first, not on the potter's wheel, but built up like a wall in architecture. The student sees with his own eyes "the correlation between the inner space and its outward plastic manifestation; its surface as the marvelous play of shades." He builds models of opaque cubes, harmonizing and arranging. He sketches his personal rhythms in relation to the materials and surfaces. He never copies, though he may study ornament of the past to secure an understanding of the creative relationship between epochs and form, and between idea and material. He learns the motions and rhythms which control and evolve ornamentation."

As to color, he "must not be introduced to the problem by copying Nature. Rather the student must acquire the knowledge of color as the artistic helpmate to create in unison with architectural space, depth in its various aspects." Contrasts and synchronisms are analyzed with color scales. Always the student specifically designates color, and no doubt material.

The student "enters deeply into the building purpose." He studies "the material, intellectual, and emotional requirements of life, modern living modes, of society, the collectivity, social organization, hotels, hospitals, etc." He has no stereotyped program, but prepares a narrative, if you please, "in minutest detail," of the daily life of those the structure is to accommodate, and "every movement and activity of that life." Here the student "should drop his pencil and commence to build." Without previous plan making, he expresses his conception by building the transparent model, "joining wall to wall, building cubes of space, joining space to space, room to room." He soon "learns that space and life are one. Turning the model upside down, he sees the plan," and the significance of that plan is then indeed a part of him forever. The mechanical representation of that plan comes after these models are revised and corrected.

Dr. Steinhof insists that these problems "be thought out comprehensively to the minutest technical and artistic detail. All lacunæ will thus be obviated." He calls it "freeing the young architect from the rubber eraser." The "stroke of the pencil" is no longer the starting point.

Construction is offered in the first step in the "form of empirical and practical consultation." The student "starts at once with the whole architectural problem. True architecture is in reality the fusion of idea with construction."

History of Art is offered as described above in this article.

Drawing objects created by Nature is of educational value only "if and when it leads to observation of the constructive organization of their objects and not in mere fixation of their pictorial impressions." Perspective is stressed, both lineal and parallel, to the end that spatial

objects may be presented. Memory drawing is used as a quick method of developing the artistic faculty. The boldness of the modern approach calls for "more graphic presentation, showing the structure in its future realistic surroundings." The ideal method would be photography, which will be used more and more.

Intellectual and technical courses proceed parallel with the above. The first step takes a year and a half!

The second step, taking an additional two and a half years, amplifies the details of the first step with more complicated projects and more application of theory, the art by way of experimentation, the construction as a science. More penetrating studies of social units, obligations, and philosophy are resorted to.

To summarize these high spots, the method of Dr. Steinhof "induces the student to organize, as unity, the sense of architecture with the sense of the living building purpose," and by way of building "avoids the former educational lacunæ of mere drawing." It summons the student "always to create," and so his work interests him and he progresses rapidly. "Psychologically, two capacities are continuously trained; the capacity of figuration and that of association." Everything acquired "has become a personal experience and therefore remains deeply rooted in the student's mind." Creative values are of prime importance.

Here is a challenge to the old system, enmeshed as it is in academic red tape, in grades, honors, honoraries, examinations, formalized classes; in theory without application; in the competitive urge as the motivating force, in place of the creative; in separating æsthetics and science and the intuition from the intellect.

Here is an analytical approach; no mechanization of that most stimulating of human attributes, self-expression; no superimposing of historic taste; no undue accentuation of the ego, as divorced from the collective group; no ignoring of the findings of the psychologists.

Here is a vision of the possible "attainment of the genuine artistic spirituality, the genuine technique, the fusion of spirit with material, the unison between art fundamentals and life functions." It is the method of a great teacher, which he has used successfully in developing the creative powers rapidly, without wasteful meanderings, and keeping them pure.

The method is interesting to the technician, but far more important to the layman is the clarifying philosophy of Dr. Steinhof, which is profound in its simplicity, and wise in its findings. Only upon such essential factors as he has crystallized can we hope to free our art education, that it may vitalize itself and find the secret of interpreting the life stream of today, without which no new style can evolve.

AN ANNOUNCEMENT BY THE B. A. I. D.

The Beaux-Arts Institute of Design announces with considerable satisfaction the fact that a course in design, under Professor Eugene G. Steinhof, will be started this fall. This course will be based on the extremely interesting work Professor Steinhof has already accomplished in the short course recently completed with the cooperation of New York University; likewise on similar work he has accomplished during the summer of 1932 at the University of Oregon where he was also in control of another course this summer. [*The New York University course will be repeated this winter.*]

Professor Steinhof's record in the Kunstgewerbe Schule, in Austria, his work with the French Government and with the South American Schools are evidences of his accomplishments in this capacity. Professor Steinhof is a sculptor, a painter, and an architect, and his instruction will give students an understanding of the principles of design not correlated to academic form nor historic precedent, but one based on the natural understanding of materials, their actual uses, and on the artistic individuality of the student. His philosophy on design can best be covered by the enthusiastic students who had the privilege of working with him and this opportunity which the Institute is enabled to offer will permit men and women to profit by an experience which may help them very much at a time when assistance in design and its relation to our life, in general, may help them to become more effective as artists in whichever field they choose to pursue their vocations.

During the coming year, the class in Architectural Ornament of the Department of Sculpture will be discontinued, inasmuch as this field will be included by Professor Steinhof.

For further information, the office of the Institute may be consulted, or through the Institute directly with Professor Steinhof.

(*Signed*) B. W. Morris
Chairman, Board of Trustees, B.A.I.D.

Here and There and This and That

Public Works to the Fore

During the past month the Public Works side of the recovery program has shown more signs of activity. A number of architectural jobs in different parts of the country have been awarded and some architects, at least, have work enough to keep them going for a while. Post-offices and housing projects have preponderated in lists so far made public, but there is hope that other types of undertakings of a public or semi-public nature will soon be approved.

We note with some misgivings that there is a tendency on the part of the administration to confine its approval to "self-liquidating" works, by which is meant that the projects are expected to pay for themselves out of earnings over a period of years. So long as enough projects of this type can be found, well and good—perhaps—but there is great need for the wide and rapid distribution of purchasing power by this means, whether the works are self-liquidating or not. As we have often stated, we believe that Public Works should be paid for out of taxation applied to the high-bracket incomes and inheritances. Financed in that way they would act to redistribute wealth and keep it distributed more equitably than has been the case in the recent past. Not only would this procedure increase employment and purchasing power among the people, but it would also trim down the excessive investment in already fully equipped industries that has brought us to our present state of depression. Both results would make for healthy business.

We hope that architects everywhere will continue to search out useful and needed Public Works projects, even small ones, and bring them to the attention of the Regional Advisers or State Boards having jurisdiction. Complete lists of these Regional Advisers and State Boards have been widely published—refer particularly to *The Architectural Record* for August and to *The Architectural Forum* for September.

Paris Prize Winner

George M. Frei, winner of the 26th Paris Prize of the Society of Beaux-Arts Architects, was born in New York,

GEORGE FREI
Winner, 26th Paris Prize

October 17, 1911. He attended Vocational High School and Cooper Union and was a student in the Atelier Morgan for four years after which he spent one year at New York University under Lloyd Morgan. While he was pursuing his studies he was employed during the daytime in the office of Taussig and Flesch for about five years. He here had the opportunity to work on several public competitions and he also niggered on several earlier Paris Prize Competitions.

He wishes to express his appreciation to the B.A.I.D. for the opportunities it offered him in the study of architecture and feels particularly indebted to his Patron, Lloyd Morgan, whose careful guidance led him to success. He also wishes to thank the men who niggered for him.

Mr. Frei expects to sail for France in the early part of September.

The Architects' Code Under the NRA

The Code Committee of the A.I.A., Octagon House, Washington, D. C., under the Chairmanship of William Stanley Parker, has invited suggestions concerning the proposed code. We print herewith two of the suggestions that have been made—one concerning fees and one concerning "stock plans." If any of our readers have pertinent ideas on these or other subjects we will be glad to give space for their discussion.

On the Matter of Fees

Mr. Victor M. Reynal, A.I.A., of East Orange, N. J., wrote to Chairman Parker as follows:

"Under paragraph 4 of the outline for the proposed code for the architectural profession as published in the July issue of *The Octagon*, it is stated that the proper basic minimum charge for full professional services shall be in line with the present Institute standards, which is, namely, 6% of the cost of the work.

"I should like to express the opinion that this so-called minimum charge of 6% has, especially during the last few years, become also the maximum charge for a very large percentage of the profession and a uniform fee has therefore substantially resulted. This fact has worked considerable hardship on the small architect, especially the suburban architect. If the city architect with wide experience, a large organization and a high overhead can, and will, do work for 6% there is no sound, economic reason, at least from a client's viewpoint, for paying the small suburban architect, with perhaps less experience and less overhead, the same fee. If the former can do work profitably at 6% (which sometimes may be doubtful) then at the same fee the latter is making an excessive profit.

"In the medical and legal professions there is no such uniformity of charges. In those professions the city practitioner will charge not 10, 20, or 30 per cent. more than his country competitor but several hundred per cent. more.

"The size of the architect's fee should be based on the three following considerations:

"QUALITY OF SERVICE: The amount of training and experience the architect has had, the number of successful jobs, the skill and efficiency of the members in his organization, and the value of his name and reputation to the work.

"SIZE OF JOB: The fee should be based on a sliding scale according to the size of the job. If, for example, a $100,000 job can be done profitably at 6% then a $200,000 job (which usually involves by no means twice the work) can be done profitably for a smaller percentage.

"LOCATION OF JOB: Under article 5 of the Schedule of Charges it states that the architect shall be reimbursed for cost of living and transportation in connection with a job. This should also include compensation for the time lost in traveling.

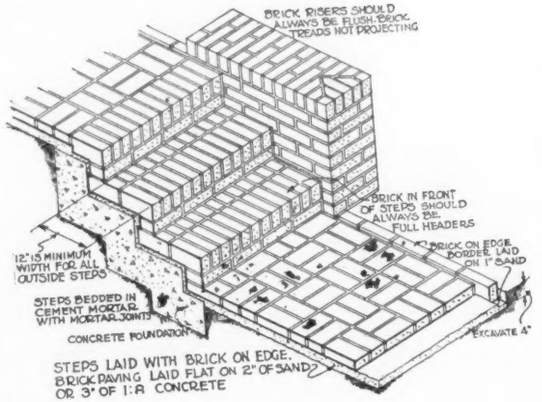
"Where a job is located at a considerable distance, the amount of time lost

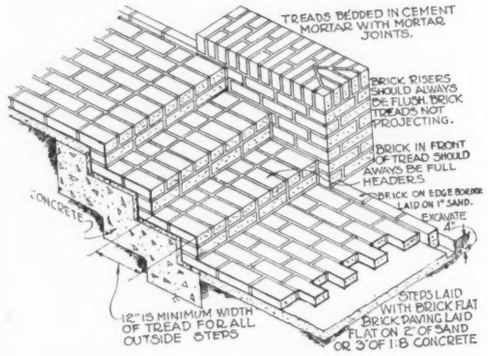
DRAFTSMAN'S DATA SHEETS

GARDEN STEPS AND WALKS OF BRICK

Prepared by Don Graf, B.S., M.Arch.

Sheet No. **F12g** PENCIL POINTS Sept., 1933


BRICK RISERS SHOULD ALWAYS BE FLUSH BRICK TREADS NOT PROJECTING
BRICK IN FRONT OF STEPS SHOULD ALWAYS BE FULL HEADERS
BRICK ON EDGE BORDER LAID ON 1" SAND
12" IS MINIMUM WIDTH FOR ALL OUTSIDE STEPS
STEPS BEDDED IN CEMENT MORTAR WITH MORTAR JOINTS
CONCRETE FOUNDATION
EXCAVATE 4"
STEPS LAID WITH BRICK ON EDGE. BRICK PAVING LAID FLAT ON 2" OF SAND OR 3" OF 1:8 CONCRETE


TREADS BEDDED IN CEMENT MORTAR WITH MORTAR JOINTS.
BRICK RISERS SHOULD ALWAYS BE FLUSH BRICK TREADS NOT PROJECTING.
BRICK IN FRONT OF TREAD SHOULD ALWAYS BE FULL HEADERS
BRICK ON EDGE BORDER LAID ON 1" SAND.
EXCAVATE 4"
CONCRETE
12" IS MINIMUM WIDTH OF TREAD FOR ALL OUTSIDE STEPS
STEPS LAID WITH BRICK FLAT BRICK PAVING LAID FLAT ON 2" OF SAND OR 3" OF 1:8 CONCRETE

The under surface of the concrete base should not slope or it will tend to slide out of place. It should be stepped, and reinforced unless placed on undisturbed earth.

By permission of Common Brick Mfrs. Assn.

THE DRAFTSMAN'S NOTEBOOK

Four *Data Sheets* will appear every month in PENCIL POINTS. When cut out, trimmed and punched they fit a standard six-ring notebook, making an up-to-date and growing reference for convenient use at the drafting table. Readers are urged to make comment, criticism or suggestions to Don Graf, in care of PENCIL POINTS, 330 West 42nd St., New York City.

For those who came into the class late, the *Data Sheets* have been reprinted in sets of 24, punched and ready for filing in your notebook, at 75c per set. Three sets are now available, covering the *Data Sheets* appearing in PENCIL POINTS for January to June and July to December, 1932, January to June, 1933, all inclusive.

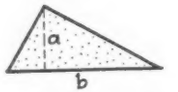
Several readers have mentioned the convenient size of the Draftsman's Notebook. It is small enough so that it can be opened out on the drafting table without covering up half (or more) of the drawing. It doesn't get in the way of the triangle or the T-square. It doesn't weigh half a ton, either, when you want to push it somewhere else. And being loose-leaf you can take out any sheets you want and put the book itself out of the way —but be sure your name is on every sheet or some careless brother may adopt those that are within reach.

DRAFTSMAN'S DATA SHEETS

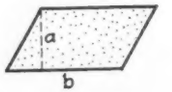
AREAS OF PLANE FIGURES

Prepared by Don Graf, B.S., M.Arch.

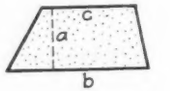
Sheet No. **C2f** PENCIL POINTS Sept., 1933



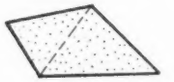
Area of triangle $= \frac{a\,b}{2}$



Area of parallelogram $= a\,b$



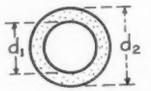
Area of trapezoid $= a\left(\frac{b+c}{2}\right)$



Area of trapezium = Divide into two triangles and find the area of each separately.

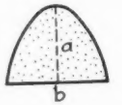
Area of regular polygon having n sides $= r\left(\frac{n\,s}{2}\right)$

Area $= 0.2146\ r^2$



Area $= 0.7854\ (d_2^2 - d_1^2)$

Area of ellipse $= 0.7854\ d_1 d_2$



Area of parabola $= \frac{2\,a\,b}{3}$

DRAFTSMAN'S DATA SHEETS

PLANNING THE MAIL CHUTE SYSTEM

Prepared by Don Graf, B.S., M.Arch.

Sheet No. **F13d**
PENCIL POINTS
Sept., 1933

WHERE MAIL CHUTES CAN BE USED. Subject to the approval of the postmaster* mail chutes and receiving boxes may be placed in public buildings, railroad stations, hotels and business or office buildings of not less than four stories, and apartment houses of not less than 40 residential apartments. Buildings in which receiving boxes are located shall be open to the general public without restrictions during the hours prescribed for collections to afford access to such receiving boxes.

LOCATION OF RECEIVING BOXES. Receiving boxes shall be placed as near to a main entrance of the building as may be practicable. Where it is impracticable because of structural conditions to place the receiving box within 50 feet of a main entrance, the postmaster may approve* a location in excess of that distance provided it is no farther from a main entrance than the center of the ground floor of the building and is less than 100 feet. In no case shall a receiving box be placed on other than the ground floor of a building.

POSTMASTER'S APPROVAL.* To the postmaster shall be submitted the contract and specifications for any proposed chute and box, which shall provide for a complete installation ready for collection service, with a tentative plan of the building showing the contemplated location therein of the whole of such chute and of the box connected therewith. If the postmaster approves such contract and specifications, locations, and arrangements proposed, he shall indorse his approval upon such contract and report his action to the Post Office Department. Collections shall not be made from any box not so approved. An unapproved box shall not bear any sign indicating that it is under the protection of the U. S. Postal Service.

OWNERSHIP OF EQUIPMENT. Mail chutes and receiving boxes shall be considered the property of the United States whenever and so long as collections of mail matter are made therefrom, and shall be and remain under the exclusive custody and control of the postmaster until collections are discontinued by his direction.

CONCEALMENT OF CHUTE. The concealment of the mail chute in the first story for architectural effect or other reasons, is not only contrary to the Post Office regulations (*see Data Sheet F13a*) but is contrary to good mail chute practice. In some cases approval of chutes which were concealed between the receiving box and the second floor has been obtained. These chutes were installed over the protest and advice of the mail chute manufacturer, and a great amount of trouble has been caused from mail becoming clogged. The discovery and clearance of mail in the clogged chutes has been very difficult.

*Obtaining the postmaster's approval is a process most satisfactorily assumed by the mail box manufacturer. The architect should provide him with the necessary information which he will submit in proper form for Post Office O. K.

ANSWERS TO DATA SHEET-ERS

R. E. Hanna, Canton—Forgot to say that contributions are always welcome.

J. H. Schwarz, Brooklyn—The stakes lean toward each other, AA is correct.

Ernest Bjorkman, New York—See Data Sheet A5a, July, 1932, and if this isn't what you want write me again.

J. R. Webster, Omaha—This is very good dope, and it is planned for future *D. S.*

Lew E. Howe, Atlanta—Thanks for the orchids.

DATA SHEET NO. F12g. *If the outside steps and walks are left to the Masonry Contractor's ingenuity, they may be properly built and again they may not. With this sheet there is no excuse for omitting the construction on the drawings.*

DATA SHEET NO. C2f. *Let us observe a minute of silence in tribute to the forgotten geometricians who first worked out the areas of plane figures. They deserve it.*

DATA SHEET NO. F13d. *One of a series of four sheets giving the latest information on mail chutes in accordance with the recently amended Postal Laws and Regulations.*

DATA SHEET NO. A2a. *Many times steel or concrete lintels are placed to carry the facing of a wall when the limestone lintel would more than take care of the load. This is a particularly useful sheet to use where the cost of steel and back-checking stone might be avoided.*

DRAFTSMAN'S DATA SHEETS

SAFE LOADS ON LIMESTONE LINTELS

Prepared by Don Graf, B.S., M.Arch.

Sheet No. **A2a**
PENCIL POINTS
Sept., 1933

SAFE SUPERIMPOSED UNIFORM LOAD PER FOOT OF SPAN FOR SIMPLY SUPPORTED LINTELS 1" THICK.

Height of Lintel	Span in Feet — Coefficient of Deflection in italics.									
	4 *.014*	5 *.021*	6 *.031*	7 *.042*	8 *.054*	9 *.069*	10 *.085*	12 *.123*	14 *.167*	16 *.218*
6"	25	14	8	4	2	0				
8"	48	28	17	10	6	3	1	0		
10"	77	46	29	18	12	7	4	0		
1'- 0"	114	68	44	29	19	13	8	2	0	
1'- 2"	157	96	62	42	29	20	13	5	0	
1'- 4"	208	128	74	57	40	28	20	9	1	0
1'- 6"	264	163	108	74	53	38	27	13	5	0
1'- 8"	330	204	136	94	67	49	36	19	8	2
1'-10"	400	248	166	116	84	62	46	25	12	4
2'- 0"	480	298	200	140	102	75	56	32	17	7
2'- 2"	565	352	238	167	122	91	69	40	22	11
2'- 4"	656	410	280	196	144	107	81	48	28	15
2'- 6"	757	472	320	227	167	126	96	57	34	19
2'- 8"	860	542	368	261	192	145	111	63	41	24
2'-10"	980	614	416	296	220	166	128	71	49	29
3'- 0"		692	470	334	249	188	145	90	57	36
3'- 2"		770	526	374	278	212	163	103	65	40
3'- 4"		858	584	418	310	236	184	115	74	47
3'- 6"		946	645	466	344	263	204	129	84	54
3'- 8"			712	510	380	291	227	144	94	62
3'-10"			776	555	416	320	250	160	105	70

Table is based on the following conditions:
Extreme fibre stress = 125 lbs. per □ inch.
Unit shear = 150 lbs. per □ inch.
Modulus of elasticity = 4 400 000.
Factor of safety = 8 to 10.
Weight of the lintel itself has been deducted.
Weight of limestone taken as 144 lbs. per cubic foot.

The deflection of the lintel in inches when loaded with the superimposed loads shown in the table may be found by dividing the deflection coefficient by the height of the lintel in inches.

Formulae used in calculating table values:
Superimposed bending load = $14\ d^2 / L^2 - d$.
Superimposed shear load = $300\ d / L - d$.
Maximum deflection = $L^2 / 1173\ d$.
d = height of lintel in inches.
L = span of lintel in feet.

Reprinted by permission of the Indiana Limestone Company.

in travel might easily equal the time actually spent in supervision. In such a case, with the cost of supervision doubled, an additional charge is certainly justified.

"The inequity in the matter lies in the fact that for the minimum of 6% it is possible to obtain today the best services the profession has to offer (irrespective of additional cost due to the location or the size of the job). Yet when lesser services are offered the client is expected to pay the same amount.

"Any schedule of minimum charges which ignores the important factors of quality of service and size and location of the job is both basicly unfair and economically unsound."

"Stock Plans" in the Architects' Code

The following recommendation has been forwarded to the National Industrial Recovery Administration in Washington by The Architects League of Northern New Jersey on behalf of the architectural profession for inclusion in the Code being prepared for the entire Construction Industry:

"Under the heading of Unfair Practices and Unfair Competition: That national building material producers and distributors as well as 'home' type magazines cease the advertising and distribution of 'stock' house plans, an infringement upon the work of architects, the use of which is detrimental and a very costly procedure to the small home-owner in the end and constituting unfair and cut-rate below cost competition to practicing architects and an inferior substitution supplanting the recognized needed protection and value of real architectural services for home building.

"When it is considered that leaders in the construction industry foretell that improvement will be first felt wholly in the small house field and when the need of work in architects' offices is considered together with the more vigorous solicitation of small house work by architects added to the fact that small house work is being successfully executed by architects, from whose offices it is noted most of the best examples of small house architecture is being obtained for magazine and newspaper publication (that is, actually completed work) and the fact that the profession has repudiated the Architects' Small House Service Bureau in the national referendum conducted in 1932 followed by a Unanimous Report of the American Institute of Architects Committee as published in the May, 1933, issue of *The Octagon*, wherein similar recommendations as above are made, these statements appear as the unquestioned sentiment of the majority of the profession. Chapters and committees and individuals concurring in this recommendation, it is felt, are rendering the profession a service by agitating for its inclusion."

New Art Classes in New York

Mr. Theodore de Postels, A.I.A., architect and artist, together with his sons Robert and Leopold de Postels are forming the de Postels Art Classes as follows:

Classes in Practical Perspective, Rendering and Architecture, a course in The Practical Use of Color in Painting and Scenic Art, including the Study of Color Psychology and the Correlation of Color and Music, also a Special Class in Fine Arts, an Antique Class, and a Life Class.

The purpose in these classes will be to acquaint the student, in the shortest possible time, with practical and valuable knowledge in any of the above subjects, to offer experience in those lines under close personal guidance of the instructor, and to teach simultaneously the methods of approach and research in the study of any of the subjects.

The Classes will be held in a central location of Manhattan, beginning in the middle of September. Also private instruction can be given if desired in any of the subjects mentioned. For further information call BRadhurst 2-5387.

Pen-and-Ink

A useful folder containing a series of reproductions of pen-and-ink drawings by well known artists has recently been published by Joseph Gillott & Sons, Ltd., of 93 Chambers St., New York, at a nominal price of 35 cents a copy. It contains 11 plates, 8½" x 11", upon which are shown sketches by Gordon Grant, Charles D. Maginnis, Sydney R. Jones, Samuel Chamberlain, H. C. Wilkinson, Jeannette C. Shirk, Richard Powers, Linley Sambourne, Arthur Ferrier, Harvey Furness, Alfred Parsons, and Tofani. It should be helpful to students of pen-and-ink technique.

Resilient Floors

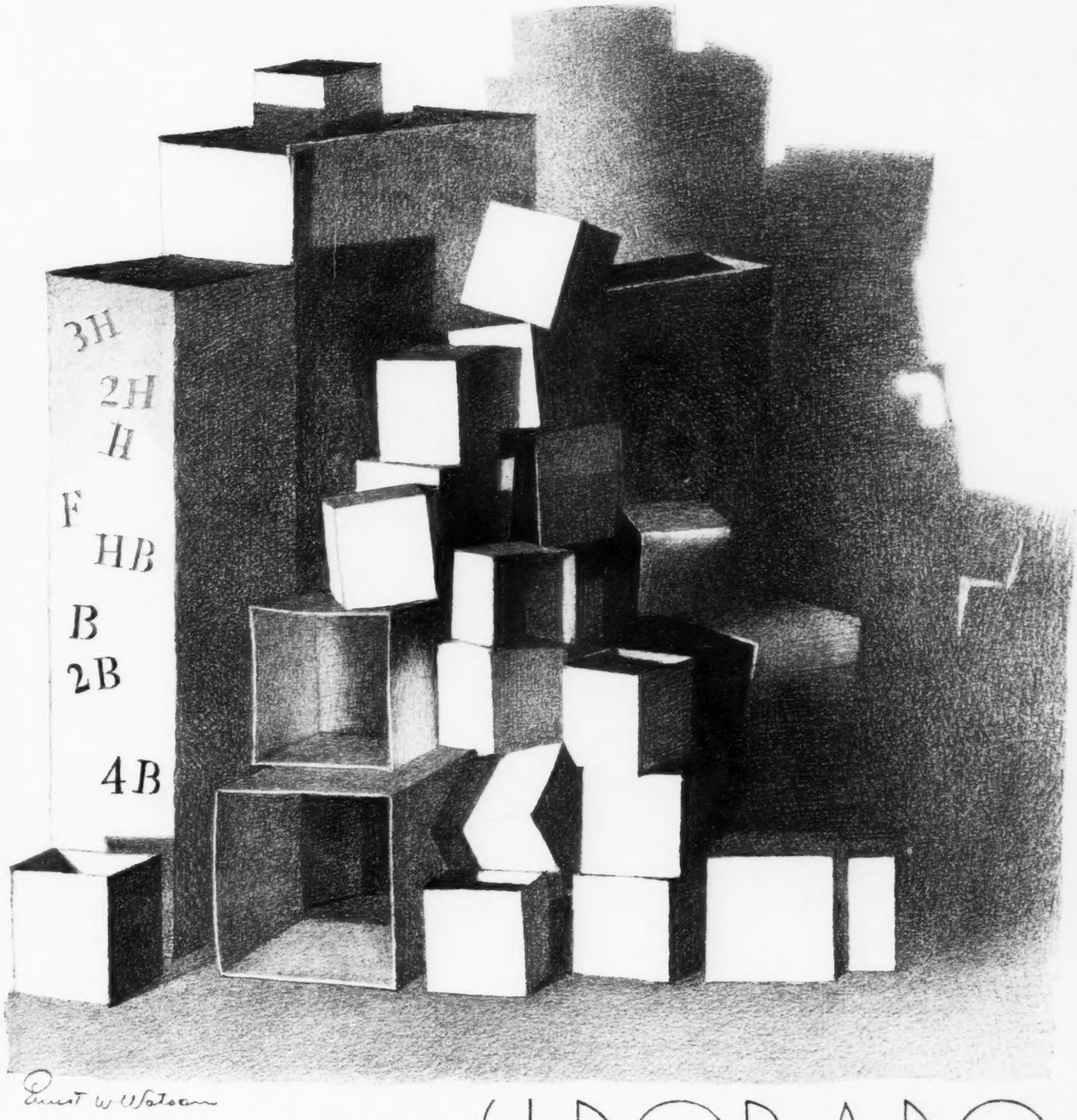
The Bryden-Craft Specifications, of 101 Park Avenue, New York, has published a very useful book of Standard Specifications for Resilient Floors which may be had for $5.00 a copy. It presents complete and accurate information for all types of resilient floors in a form which simplifies the work of the specification writer. The specifications result from many years of practical experience on the part of the author, Mr. W. N. Bryden, and were prepared with the thought of helping to raise the existing standards of floor construction. The work covers rubber tile, cork tile, mastic tile, linoleum, linoleum tile, magnesite composition, magnesite terrazzo, asphalt, mastic, wood block and other types of floors, and is illustrated with sketches showing construction details. It should be a valuable addition to the architect's working library.

In Chicago

The Architectural Sketch Club of Chicago reports that the Annual Architectural Exhibition has been moved from the Architects' Club, 1801 South Prairie Avenue, to the second floor of the General Exhibits Building at the Century of Progress. Work of some of the leading architects and artists of this country are represented by photographs, drawings, and models, together with several casts and wood cuts. A specially loaned collection of original drawings of the Columbian Exposition of 1893 and of a Century of Progress is included as well as some student work from the leading architectural schools. The exhibition will run concurrently with the Fair until November 1, 1933. Visiting architects are urged to attend.

The Tech Architectural Club hastens to get into the record the names of the officers installed at the Annual Banquet last May. For the benefit of those who came in late, they are: Beman I. Petersen, President; Wallace Jenkins, Vice President; Frank Sleeter, Secretary; George Bostik, Treasurer; Dave Gutensky, Historian.

The Architects' Club of Chicago has extended open house privileges to members of the building industry during their visit to a Century of Progress. It has also offered a special membership during the period of the Fair to members of the industry and their wives and has facilities for housing a limited number who visit Chicago. Secretary Heimbrodt calls attention to an important point in regard to the location of the Architects' Club with reference to a Century of Progress. "The Club is opposite the 18th Street entrance to our glorified Coney Island," he writes. "This apparently is important to a great many people due to many visitors we have had." Summer activities of the Club are confined to golf outings every second week. The fall program will start with a meeting some time as yet undecided in October."



ELDORADO
THE MASTER DRAWING PENCIL

REMEMBER the paper water-front that Ernest Watson, with Eldorado, the master drawing pencil, sketched last April? Well, here are some packing cases on one of the docks. And beside them, Mr. Watson has indicated the Eldorados he used in this particular sketch.

These packing cases are very easy to make. Just use white paper. Be sure it's white, for a gray or tinted paper does not light up well. Cut and paste your paper as shown. Throw a bright light on them—200 watts is recommended, but less will do—and move the light around until you get the effect of light and shade that is most pleasing to you. Then get Eldorado, in the degrees specified, and set to work. You may need a kneaded eraser for picking off overemphasized tones. If so, use it.

These Eldorado Abstracts help wonderfully in the development of pencil technique, and in acquainting you with the proper degrees of lead to use for certain effects. You'll find the constant degrees of Eldorado of invaluable assistance. Joseph Dixon Crucible Company, Dept. 167-J, Jersey City, New Jersey.

SERVICE DEPARTMENTS

THE MART. In this department we will print, free of charge, notices from readers (dealers excepted) having for sale, or desiring to purchase books, drawing instruments, and other property pertaining directly to the profession or business in which most of us are engaged. Such notices will be inserted in one issue only, but there is no limit to the number of different notices pertaining to different things which any subscriber may insert.

PERSONAL NOTICES. Announcements concerning the opening of new offices for the practice of architecture, changes in architectural firms, changes of address and items of personal interest will be printed free of charge.

FREE EMPLOYMENT SERVICE. In this department we shall continue to print, free of charge, notices from architects or others requiring designers, draftsmen, specification writers, or superintendents, as well as from those seeking similar positions. Such notices will also be posted on the job bulletin board at our main office, which is accessible to all.

SPECIAL NOTICE TO ARCHITECTS LOCATED OUTSIDE OF THE UNITED STATES: Should you be interested in any building material or equipment manufactured in America, we will gladly procure and send, without charge, any information you may desire concerning it.

Notices submitted for publication in these Service Departments must reach us before the fifth of each month if they are to be inserted in the next issue. Address all communications to 330 West 42nd Street, New York, N. Y.

THE MART

H. L. Kamphoefner, 513 17th Street, Sioux City, Iowa, would like to obtain the following copies of *The Architect:* May and June, 1929, and February, 1931.

Nelson L. Burbank, 1577 Glen Parker Ave., Cincinnati, Ohio, has for sale 12 volumes of the *Federal Schools Course in Commercial Art*, each with charts, in excellent condition. Price $1.00 per volume.

M. R. Simon, 364 Kenwood Avenue, Delmar, N. Y., would like to purchase the following *White Pine Series:* Vol. 1, No. 3; Vol. 2, Nos. 1, 3, 4, and 6; Vol. 3, Nos. 1, through 4.

Luther E. Daugherty, 424 East Pearl Street, Butler, Pa., would like to sell or trade for architectural books, the following: a complete set of *The Institute of Business Science Library*, 63 volumes, and an *Executives Reading Guide*, slightly used, imitation leather bound, published by The International Textbook Company.

Joseph A. Petrillo, 4831—36th St., N. W., Washington, D. C., would like to purchase the following books: *Early Connecticut Architecture*, by Kelly, and *The Works of Dwight James Baum*. State condition and price.

John Vassos, New Canaan, Connecticut, would like to obtain three or four copies of the October, 1930, issue of PENCIL POINTS.

Jack Adams, 824 Knickerbocker Avenue, Brooklyn, N. Y., has the complete issues of 1920, 1921, 1922, 1923, 1924, and 1925, PENCIL POINTS for sale.

MANUFACTURERS' DATA WANTED

REQUESTS FOR manufacturers' literature have been received from the following:

OLIVER O. GAUVIN, ARCHITECT, Room 109, 160 So. Main St., Providence, R. I.

JOSEPH L. STEELE, ARCHITECT, 1608 Boas Street, Harrisburg, Pa. (catalogs relative to pool construction, bleachers, acoustical treatment and other items incidental to an athletic building of the college type).

PAUL M. HAVENS, ARCHITECT, First National Bank Building, St. Paul, Minnesota.

JOHN PINE DELAVAN, architectural student, 465 Brattle Road, Syracuse, N. Y.

CLIFFORD M. CAMPBELL, draftsman, c/o Rinderknecht Lumber Co., 358-414 Huffman Ave., Dayton, Ohio (for A.I.A. file).

HARRY D. SMITH, draftsman, Drafting Dept., Industry, N. Y.

CHRISTIAN A. WILDER, draftsman, 1065 Noe Street, San Francisco, Cal. (catalogs on residential and store work).

PERSONALS

ANTHONY D'ELIA, JR., ARCHITECT, has moved his offices from 905 Bergen Ave., to the Labor Bldg., 26 Journal Square, Jersey City, N. J.

VINCENT J. MILLER, ARCHITECT, has located his office at at 201 E. Fifth St., opposite City Hall, Plainfield, N. J.

OLIVER O. GAUVIN, ARCHITECT, has opened an office at Room 109, Infantry Hall Bldg., 160 S. Main Street, Providence, R. I., for the practice of architecture.

PAUL M. HAVENS, ARCHITECT, has opened an office for the general practice of architecture at First National Bank Building, St. Paul, Minn.

J. LINERD CONARROE, ARCHITECT, has moved from 1518 Walnut Street to 1805 Walnut Street, Philadelphia, Pa.

A FREE EMPLOYMENT SERVICE

Position Wanted: Architectural draftsman and designer of 32 years' experience desires position. College and Atelier training with experience in the best offices on all kinds of buildings, large and small. Registered architect New York and Florida. Salary reasonable. Wm. P. Cane, 168 East 24th Street, New York, N. Y.

Position Wanted: Young man, 26 years of age, married, four years' college training, two years' practical experience, desires position with an architectural firm of good repute. Capable draftsman, adept at rendering and perspectives. Salary normal with conditions. Location immaterial. Excellent references. Box No. 900, care of PENCIL POINTS.

Position Wanted: Young man, 22, desires position in architect's or contractor's office. I.C.S. student of complete architecture. Considerable drafting practice in high school, Y. M. C. A. night school as well as I.C.S. work. Married and a willing worker. Has chosen architecture as a profession. Experience main object. Willing to go anywhere. Luther E. Daugherty, 424 East Pearl Street, Butler, Pa.

Position Wanted: Young man, 21, junior draftsman or office work in architect's office. Salary no object. Student architecture six years. Knowledge of small house construction, water color rendering, shades and shadows, perspective and free-hand drawing. Preparing for Beaux-Arts Institute of Design work. Irving Guenasio, 250 Seely Street, Brooklyn, N. Y.

Position Wanted: Teaching position wanted by registered architect, age 27, educated at the Harvard School of Architecture, taught perspective one year at Cooper Union. Box No. 901, care of PENCIL POINTS.

Position Wanted: Young man, 22, graduate in design of New York University, six and one-half years' experience as draftsman making shop drawings, details and sketches. Experience in architectural wrought metal and period woodwork, interior and exterior. Excellent references. Box No. 902, care of PENCIL POINTS.

ADDITIONAL EMPLOYMENT SERVICE ITEMS WILL BE FOUND ON PAGE 24, ADVERTISING SECTION

NOW... *greater flexibility in planning a* HEATING SYSTEM

THE two sizes of G-E Oil Furnaces (identical except in size and price) offer greater flexibility in the planning of a heating system. For the smaller home, the smaller size. For the larger home, the large size. And for the extra large house, or the small office building, store, apartment, or factory, two or more units of either size operate perfectly in multiple. More than one thermal control may be used for zoned systems if desired.

This equipment can be used with steam, vapor or hot water systems. Or in connection with the G-E Air Conditioning System it provides winter air conditioning.

The General Electric Oil Furnace is the result of five years of careful research. Burner, steel boiler, controls, and water heater are designed and built by G-E as one complete coordinated unit. Supplies hot water winter or summer at low cost.

The efficiency of this furnace is almost unbelievable. Many owners report fuel savings of 20% to 50%. For one thing, the new "impact expansion" principle of combustion gets more heat from cheaper oil. The combustion chamber is completely lined with firebrick, and all heat-absorbing surfaces are almost entirely backed by water. Then too, the flame burns downward and the flue is at the bottom, so all heat is trapped.

Every owner of a G-E Furnace is a proud, enthusiastic owner. When you specify this equipment you specify something that will redound to your credit for years to come.

Full information about this furnace is available for architects. Communicate with Air Conditioning Department, General Electric Company, 570 Lexington Ave., New York, N. Y.

Cut-away, cross-section view, showing revolutionary new way in which the G-E Oil Furnace burns the oil, gets more heat out of it. "Impact-expansion" atomization breaks the oil into a finer mist than ever possible before.

What your client gets as standard equipment with every General Electric Oil Furnace

G-E type Burner Mechanism . . . All-electric Controls . . . Welded Steel Boiler . . . All-electric Ignition . . . Built-in Domestic Hot Water Heater . . . Electric Clock Thermal Control . . . Rotary Oil Pump . . . 4-Second Flame Detector . . . Water Circulator (Hot water system) . . . High-Temperature Cut-Off (Hot water system) . . . Pressure Cut-Off (Steam or vapor system) . . . Low Water Cut-Off (Steam or vapor system) . . . Domestic Water Temperature Switch . . . Automatic Vacuum Breaker (Steam or vapor system) . . . Expansion Relief Door . . . Fine Silver Contact Points, Quick-make and Quick-break . . . Self-oiling G-E Motor (Direct Drive) . . . Outer Jacket of Steel, Glyptal Finish, Chromium Plated Trim.

GENERAL ELECTRIC OIL FURNACE

Publications on Materials & Equipment

Of Interest to Architects, Draftsmen and Specification Writers

Publications mentioned here will be sent free unless otherwise noted, upon request, to readers of PENCIL POINTS *by the firm issuing them. When writing for these items please mention* PENCIL POINTS.

Atlantic Terra Cotta in the Cincinnati Union Terminal.—A.I.A. File No. 9. New publication describing and illustrating with photographs and drawings the installation of Atlantic terra cotta in the Cincinnati Union Terminal. 8 pp. 8½ x 11. Atlantic Terra Cotta Co., 19 W. 44th St., New York, N. Y.

Quikheter for Auxiliary Heating.—Illustrated folder giving details of construction and installation of a combination convection and radiant glow type of electric heater for use in bathrooms, children's bedrooms, dressing rooms, play rooms and nurseries. 4 pp. 8½ x 11. Frank Adam Electric Co., 3650 Windsor Place, St. Louis, Mo.

Glasiron Macotta.—A.I.A. File No. 15. Descriptive bulletin, printed in colors, covering a new lightweight, weatherproof building unit, with a permanent surface of porcelain enameled steel, which is firmly anchored to the concrete backing, suitable for use on exteriors and interiors. 4 pp. 8½ x 11. The Maul Macotta Corp., 1640 East Hancock Ave., Detroit, Mich.

Sturtevant Air Conditioning.—Catalog No. 392, just issued, illustrates and briefly describes the complete line of Sturtevant air conditioning units, adaptable for various applications of air conditioning, including residences, stores, restaurants, libraries, industrial plants, theatres, banks, offices and public buildings. 18 pp. 8½ x 11. B. F. Sturtevant Co., Hyde Park, Boston, Mass.

Mechanical Draft and Atmospheric Type Cooling Towers.—A.I.A. File Nos. 34-i-3 and 32-e-2. Set of new bulletins featuring the installation of mechanical draft and atmospheric types of cooling towers in Rockefeller Center, New York, and discussing various types of mechanical draft towers, their construction, operation and cooling results. 8½ x 11. The Cooling Tower Co., Inc., 15 John St., New York, N. Y.

Sloan Flush Valves.—Catalog 32 presents complete descriptive information covering a full line of flush valves suitable for use in buildings of all types. Dimension drawings, prices, illustrations. Installation data. 40 pp. 8½ x 11. Sloan Valve Co., 4300 W. Lake St., Chicago, Ill.

Trem-Bar Resilient Machine Mounting.—New bulletin dealing with the subject of Trem-Bar, a rigid platform supported on sensitive, resilient steel springs, designed to prevent the transmission of annoying noise and vibration from machines. 4 pp. 8½ x 11. United States Gypsum Co., 300 W. Adams St., Chicago, Ill.

Frigidaire Beer Cooling Equipment.—New folder covering a line of high-speed Frigidaire coolers and dispensers for draught beer. Included is a new type of fixture especially designed for restaurants, hotels, clubs, amusement parks, etc. 6 pp. 8½ x 11. Frigidaire Corporation, Dayton, Ohio.

Convectofin—The Built-in Heater.—A.I.A. File No. 30-c-4. Bulletin No. 6, just issued, presents useful descriptive and engineering data on a built-in type of heater. Various types of installations, flush, offset, floor, sill, etc., are shown photographically and in sectional drawings. Capacity tables. 8 pp. 8½ x 11. Commodore Heaters Corporation, 11 West 42nd St., New York, N. Y.

Hamilton Drafting Room Furniture.—A.I.A. File No. 35-h-31. Valuable new reference manual covering a complete line of wood and steel drafting room furniture. Important new developments in drafting room and commercial art methods and equipment are presented. 60 pp. 8½ x 11. Hamilton Manufacturing Co., Two Rivers, Wis.

Ward Leonard Rheostats and Dimmers.—New bulletin describing a line of rheostats and dimmers for use in theatres, colleges, auditoriums and schools. Ward Leonard Electric Co., Mount Vernon, N. Y.

Published by the same firm, "New Vitrohm Stamped Steel Theatre Dimmer Plates." A.I.A. File No. 31-f-17. Supplement bulletin 75000 announces and describes a newly-developed Vitrohm theatre dimmer plate, using a stamped steel base in place of cast iron. 8½ x 11.

House Insulation—Its Economies and Application.—A report, issued in booklet form by a subcommittee of the National Committee on Wood Utilization, designed to point out to architects and builders of homes the economies and advantages involved in the proper use of insulating materials for home construction. Insulating value tables, detail drawings, illustrations. 52 pp. Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., at 10 cents a copy.

Mesker Industrial Windows, Screens, Operators and Doors.—A.I.A. File No. 16-e-1. Useful reference book for the architect and draftsman covering a full line of metal screens, pivoted sash, commercial projected sash, architectural projected sash, monitor sash, mechanical operators and industrial doors. Included are large number of construction and installation detail plates, standard sizes, full size sections, specifications. 72 pp. 8½ x 11. Mesker Bros. Iron Co., 424 S. Seventh St., St. Louis, Mo.

New Timken Silent Automatic Oil Furnace.—A.I.A. File No. 30-c-14. Folder describing the construction and operation of a new combined oil-burner and boiler for heating new and old homes. Mechanical data, specifications. 6 pp. 8½ x 11. The Timken Silent Automatic Co., 100 Clark Ave., Detroit, Mich.

Published by the same firm, "Timken Silent Automatic Coil Burners." Attractive brochure devoted to a description of the advantages and construction of a type of silent automatic oil burner adaptable for installation in steam, vapor, hot water or warm air systems. 16 pp. 8½ x 11.

New Webco Swinging Leaf Blackboard.—Descriptive bulletin covering a new type of multiple-leaf blackboard, providing a large amount of writing surface in a small space, for both school and commercial uses. 4 pp. 8½ x 11. Weber Costello Co., Chicago Heights, Ill.

The 3-Way Steel Heating Boiler.—A.I.A. File No. 30-c-1. Folder with descriptive and tabular matter covering a type of steel boiler for either steam, vapor or hot water heating, which also heats domestic hot water and burns garbage and rubbish. 4 pp. 8½ x 11. Johanson Boiler Sales, 1239 Fullerton Ave., Chicago, Ill.

Handlaid Floors of Armstrong's Linotile.—Attractive brochure devoted to the subject of Linotile flooring suitable for stores, offices, banks, hospitals, schools, etc. The full range of colors are shown together with typical designs and color combinations that can be worked out. Included is brief data covering cork tile flooring. 12 pp. 8½ x 11. Armstrong Cork Co., Floor Division, Lancaster, Pa.

The Williamson Boiler-Plate Furnace.—A.I.A. File No. 30-b-1. Catalog No. BP-33 announces and describes the construction features of a new improved model boiler-plate pipe furnace. Rating and dimension tables. 12 pp. 8½ x 11. The Williamson Heater Co., Cincinnati, Ohio.

RCA Victor Centralized Sound Systems.—A.I.A. File No. 31-i-6. New brochure presenting useful information on the subject of centralized sound, public address and sound reinforcing systems and on a new line of equipment for the pickup, control, amplification, distribution and reproduction of sound. Illustrations show a number of typical installations. 32 pp. 8½ x 11. RCA Victor Co., Inc., Camden, N. J.

The New Model T Kernerator.—A.I.A. File No. 35-j-41. Folder announcing and describing a new incinerator especially designed for small homes. Specifications, installation drawings. 4 pp. 8½ x 11. Kerner Incinerator Co., 3707 North Richards St., Milwaukee, Wis.

Buffalo Unit Coolers.—A.I.A. File No. 32. Bulletin No. 2904 describes and illustrates several types of suspended, floor and flat suspended unit coolers, also a new unit for room cooling and heating designed chiefly for restaurant, store and office use. 4 pp. 8½ x 11. Buffalo Forge Co., Buffalo, N. Y.

Cold Storage Doors and Windows for Breweries.—A.I.A. File No. 32-c-1. Bulletin 112, just released, fully illustrates and describes cold storage doors and windows for use in cooling, washing and racking rooms, storage cellars, etc., of breweries. Vertical sliding and Dutch doors are shown, as well as standard types. Jamison Cold Storage Door Co., Hagerstown, Md.

Spring-Dawn.—Folder giving complete descriptive and installation instructions covering a new self-supplying and self-regulating home humidification unit. 8 pp. The Spring-Dawn Co., 918 So. 17th St., St. Louis, Mo.

Weil-McLain Boilers for Oil Heating.—A.I.A. File No. 30-c-1. Catalog H-42 illustrates and explains the principles of design of a line of oil burning boilers for hot water, steam and vapor heating systems. 8 pp. 8½ x 11. Weil-McLain Co., 641 West Lake St., Chicago, Ill.

The Electro-Cabinet.—Folder giving detailed description of a new line of bathroom cabinets for residences, hotels, apartments, etc. Butler Mfg. Co., Kansas City, Mo.

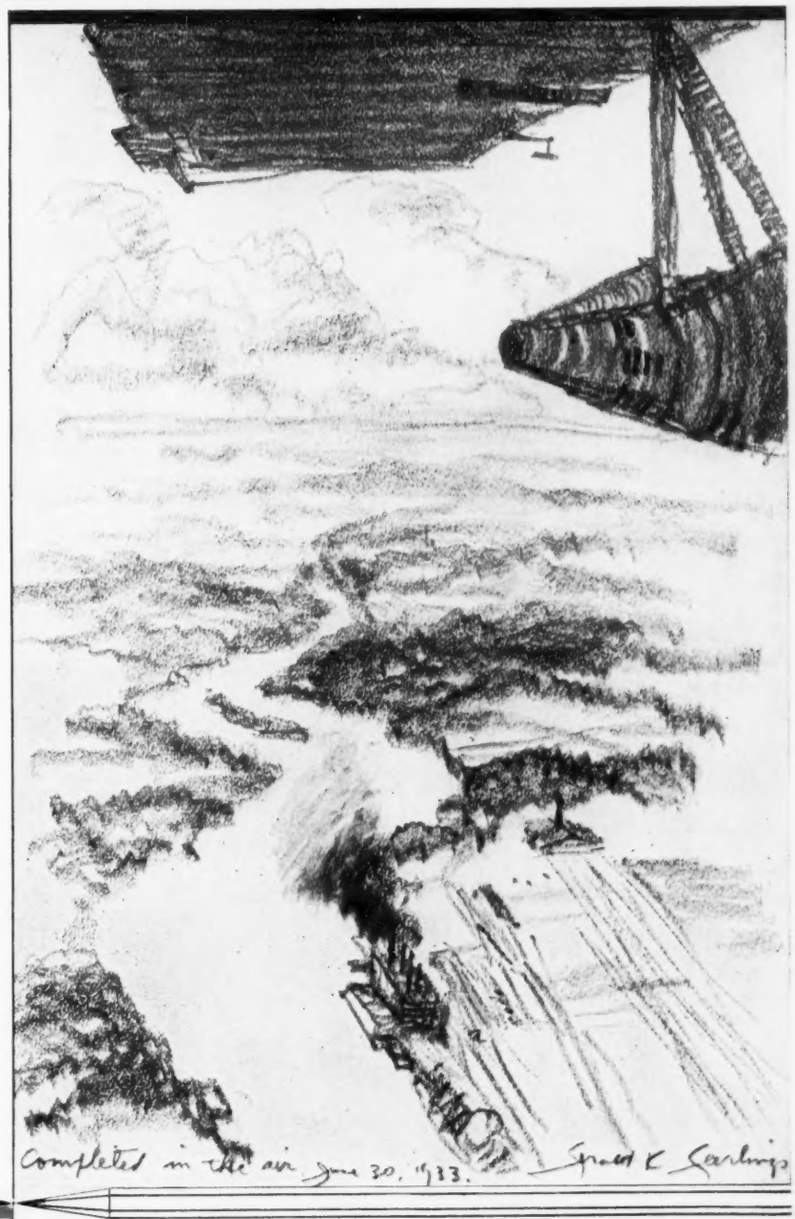
THREE-MINUTE SKETCH FROM AN AEROPLANE

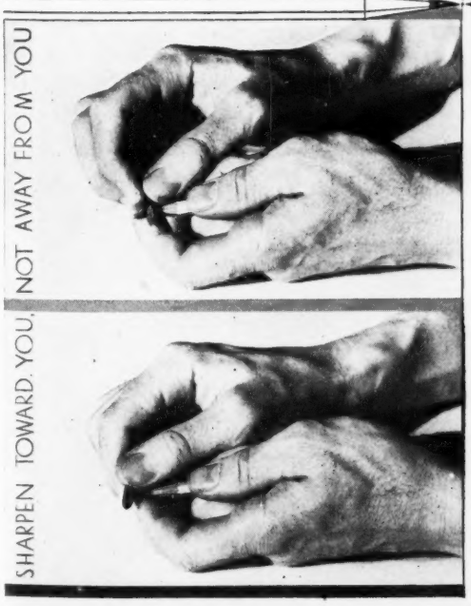
THIS DRAWING WAS MADE by Gerald K. Geerlings while flying from New York to the Chicago Fair. On landing it was "fixed" but that was all. It illustrates one means of making a quick sketch with the broad, flat surface of pencil lead. Mr. Geerlings' notes, jotted down while in the air, read as follows:

"'How's the trip?' the co-pilot asks each passenger, beginning with Number 1. I am Number 9. When it is my turn, for answer I show him a sheaf of drawings I've completed since we left Philadelphia. 'Fairly smooth day for drawing', he laconically offers. 'Yes, and a very smooth drawing pencil I'm using,' I add as he passes down the aisle.

"I've drawn from a 'plane before. Previously my chief difficulty has been to get a drawing kit which would do all things, yet consist of a single pencil. This trip I'm depending solely upon one 7B Microtomic Van Dyke drawing pencil, and have no complaints whatsoever to register. For the seven drawings the wood has required whittling only once, while the lead has been pointed twice. Obviously, drawing on a vibrating 'plane which hurtles through space 150 miles an hour is subjecting any pencil to unusually rigorous tests."

FREE SAMPLES of any two degrees of the Microtomic Van Dyke Pencil are yours for the asking. Write to the Eberhard Faber Pencil Co., Dept. PP 9-33, 37 Greenpoint Ave., Brooklyn, N. Y.





CUT SOFT LEAD TOWARD YOU

"I remember scoffing when I was first told that it was an advantage to sharpen thick, soft lead by cutting toward the pencil, as in the lower photograph to the left, instead of away from it, as in the upper one. But it really works. If you have never experimented, or if you have been annoyed with the common complaint of having soft grades break while sharpening the lead, try drawing the knife toward you. In any case, no matter in which direction you maneuver the knife, be sure to support the end of the lead, or it won't be to blame if it breaks."

—Gerald K. Geerlings.

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Opportunity: We have an opportunity of permanent character that could be developed into an independent income for responsible men associated with the architectural profession. Our incomparable natural material has an inspirational design program back of it plus mechanical artistry that wins enthusiastic endorsement in every field of structural and decorative work. Address: Stonecraft Industries, Rockford, Illinois.

Junior Partner Wanted: Established architect, New York and vicinity, age 39, member of American Institute of Architects, has opening for recent graduate as junior partner. Must have excellent financial and social connections. No. investment required. Box No. 903, care of PENCIL POINTS.

Position Wanted: Architectural draftsman, single, 27 years old, three years' experience, a graduate of the Maryland Institute in Architecture, studied in local architectural club, and at the present taking a course in architectural engineering from Pennsylvania State College Extension. Salary no object. Would like position in an architect's office. Box No. 904, care of PENCIL POINTS.

Position Wanted: Draftsman, single, 35 years old, thirteen years' general experience on creameries, municipal buildings, theatres, etc. Five of these years on residences up to $50,000. Some supervision experience. Would like office with a chance to do some designing. Prefer permanent position in large city. Good references. Salary enough to live on. Box 135, Council Bluffs, Iowa. R.F.D.

Position Wanted: Young man, 21, graduate of school of architecture, Tulane University, desires position with an architect, engineer or manufacturer. Experience main object. New Orleans preferred. Earl L. Watkins, 37 Fontainebleau Drive, New Orleans, La.

Position Wanted: Interior decorator, exceptionally well qualified by training and experience, will consider an association with an architect doing high class residential work. Box No. 905, care of PENCIL POINTS.

Position Wanted: Young man desires position. Has completed architectural course in Tilden Tech High School of Chicago. Twenty years of age. Salary no object but desire permanent position and a chance to get ahead. Herrick Gerlich, 5522 So. Sangaman Street, Chicago, Illinois.

Office or Residence Partner Wanted: To join with two experienced men (Gentiles) in architectural and business offices in New Jersey. Also, if congenial, in cooperative housekeeping, country home; possibly also some Landscape Architecture. Practice to be divided between country housing projects and industrial plants. Team to comprise a Registered Architect, and a Graduate Engineer; third man may be quite young if he bring a little capital for start. Engineer has sales connection and can find architectural work and later, if desired, some small contracting. Architect is former New Yorker, since last year in country studying housing, property improvement and land cultivation. Both are writers; both insist on a "smokeless and drunkless" place; cigarette fiends need not answer. Please address Box Two Hundred Twenty-eight (No. 228), Montclair, New Jersey.

Position Wanted: Architectural student, 19, high school graduate, two years of evening architectural school. Can do drafting, freehand drawing and rendering in various mediums, especially pen and ink. Willing to do anything in architect's office at moderate salary. Also willing to work in spare time for experience. Address, L. R., 2111 Quentin Road, Brooklyn, N. Y.

Position Wanted: Architectural draftsman, three years' experience. Cooper Union graduate. Joseph Dalis, 214 Prospect Avenue, Bronx, New York.

Position Wanted: Junior architectural draftsman or office work. Graduate of Stuyvesant High School. Age 20. John Malfa, 941 East 221st Street, New York, N. Y.

Position Wanted: By thoroughly-trained man with exceptional experience of many years. Specially experienced and qualified in supervision, specification work and office or field management. Will go anywhere. Best of references furnished. A. B. Gilkes, Alger Court, Bronxville, N. Y.

Position Wanted: Architect, college graduate with a general experience. Can run an office. Location and salary secondary. Louis Pangaro, 55 Storms Avenue, Jersey City, N. J.

Position Wanted: Architectural student, 19, high school graduate, two years of evening architectural school. Can do drafting, freehand drawing and rendering in various mediums, especially pen and ink. Willing to do anything in architect's office at moderate salary. Also willing to work in spare time for experience. L. R., 2111 Quentin Road, Brooklyn, N. Y.

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Anyone knowing the correct addresses of the following will confer a favor by sending them to this office, THE PENCIL POINTS PRESS, Inc., 330 West 42nd Street, New York City, N. Y.

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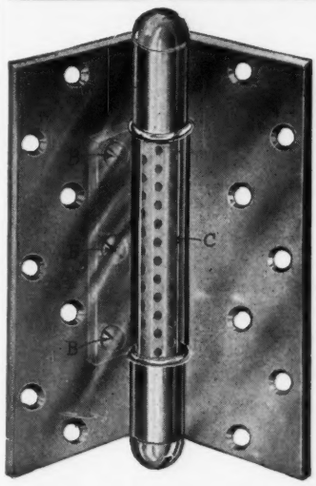

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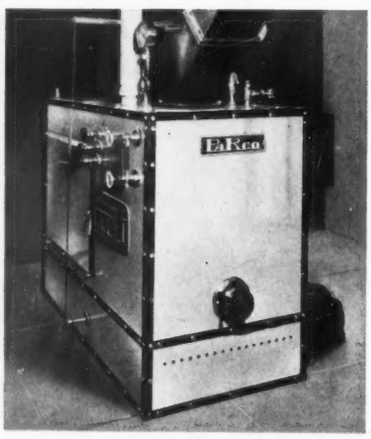
THE PARCO MAXIMATIC FURNACE

Announcement is made by the Philadelphia and Reading Coal and Iron Co., Philadelphia, of the introduction of the Parco Maximatic Furnace, a newly-designed furnace, which burns automatically the large sizes of hard coal.

The new furnace produces steam at efficiencies ranging from 80% to 90% under ordinary operating drafts. This steam is used to operate a complete air conditioning unit which heats the house in winter, cools it in summer, humidifies or dehumidifies and cleans the air. It is also used to provide domestic hot water for the entire house all year long, running ice water in master's bathroom and the kitchen during the summer. As additional work, the furnace operates the domestic refrigerator in the kitchen and also the clothes drier in the laundry. In order to demonstrate the completeness and economy of the services which can be operated from the Parco furnace, one has been installed in "Tomorrow's House," a model residence erected by the company in Merion, Pa.



The Parco furnace is built in sections consisting of fire box and boiler. The over-all dimensions are 2 ft. 7 in. wide, 3 ft. 8 in. high, and 4 ft. 10 in. long. It is automatically fed with hard coal from above, rolling down a completely closed metal chute into the firebox as needed. Ashes are automatically removed to a metal bin located in a room beyond the furnace room and opening to the outside, which requires emptying only about once in every three months.

NEW CARPETING SERVICE FOR PASSENGER ELEVATOR CARS

As a means of improving the appearance of elevator cars, and at the same time saving the building owner considerable in cleaning costs, the Otis Elevator Company has announced a new carpeting service, available for all kinds of passenger elevator cars.

Through the use of a seamless carpeting material, the Otis Company can furnish attractive floor coverings that will harmonize with the car both in regards to color and design. Twenty-two colors are available, and can be used in countless combinations.

The carpets come in two grades, standard and de luxe. The standard grade is three-eighths of an inch in thickness, while the de luxe grade is a half inch thick. Both grades are identical except for the different thicknesses. While there are a number of simple designs available, special patterns can be made up with monograms, addresses and other special features.

ARCO CONVECTOR

A new cast iron radiator, the Arco Convector, for recessed and enclosed installation, has recently been announced by the American Radiator Co., New York. It is equally well adapted for steam, vapor or hot water systems.

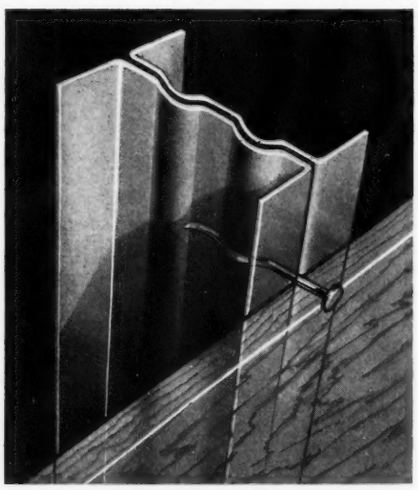
The Arco Convector is a unit of assembled cast iron finned sections and headers united with malleable nipples. The fins are cast integral with cored sections and are spaced to allow a steady and continuous flow of heated air throughout the entire surface. The sections have ample cored space to insure balanced circulation of steam or hot water and proper air elimination at varying steam pressures.

The design of the Arco Convector is said to provide an exceptional flexible unit as to length and depth to meet the varying conditions of building construction, and with its low height permits installation in minimum space allowances.

STRAN-STEEL HOUSE FRAMING

In the erection of the Stran-Steel House at the Century of Progress, Chicago, illustrated on page 248 of the June issue of PENCIL POINTS, a novel type of steel framing was used that is now being offered by the Stran-Steel Corporation, 6100 McGraw Ave., Detroit, Mich. The outstanding feature of Stran-Steel, as this framing is called, is a patented nailing slot, which provides for the nailing of floor, ceiling and wall surfacing materials, both interior and exterior, to the steel frame, just as they are to wood.

Stran-Steel is formed and riveted so that a nailing groove runs lengthwise on two sides of each stud and joist. When building materials are nailed to these members the nails follow the sinuous shape of the groove and clinch themselves firmly into place. Stran-Steel is laid out on the job and erected by ordinary carpenters using their customary tools and craftsmanship.



Stran-Steel consists of six main elements, made of 16-gauge steel, and six brackets or attachments, made of 13-gauge stock. The stud is used in place of the wood 2 x 4 for walls and as a short span header and as a light rafter. It can be placed on 2 ft. centers, and even greater spans when some of the newer and stiffer wall covering materials are employed. It has the nailing groove along both edges.

The joist is used for floors, long span headers and heavy rafters. It comes 7 in. deep, and will take clear spans up to 18 ft. on 2 ft. centers. Greater spans are usually broken up with I-beams in the usual manner. The nail-

ing groove runs the length of both edges of the joist.

The plate, to which the joists and studs are bolted or fastened with drive screws, is a channel-shaped member with holes running along both sides and back, spaced one inch apart to provide flexibility in assembly.

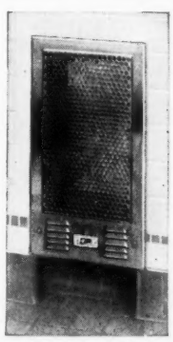
The ridge is made of two wide shallow channels, flush-welded back-to-back. It also serves for valleys.

The half-stud is used for backing up lath, for false ceilings and as a nonsupporting nailing strip. It is made by slitting a stud lengthwise into similar T-shaped members, each with a nailing groove.

The bridging is made of 1-in. strip and comes in rolls of convenient length.

A NEW AUXILIARY ELECTRIC HEATER

The Frank Adam Electric Co., St. Louis, Mo., has recently introduced the Quikheter for the auxiliary heating of bathrooms, children's bedrooms, dressing rooms, sitting rooms, sewing rooms, play room and nursery. It is a combined convection and radiant glow type of electric heater, especially designed to be built into the walls or partitions of old or new residences.



The Quikheter is equipped with a 1500-watt nichrome wire heating element because this capacity, it is stated, will heat up the average bathroom quickly and still economically in from five to fifteen minutes, according to the size, and will keep comfortable the larger rooms when used continuously. The enclosing box, which is made of 16-gauge galvanized steel, is 12½ in. wide, 23 in. high, and 4 in. deep.

ADDITION TO LINE OF TEMLOK INSULATING PRODUCTS

Available for the first time in a single thickness, fibreboard insulating lath one and one-half inches thick is announced by the Armstrong Cork & Insulation Company, Lancaster, Pa. This new thickness is the latest addition to the line of Temlok insulation products distributed by the company through retail lumber dealers. Temlok insulating board for use as sheathing, interior finish, and miscellaneous construction also will be furnished in the solid one and one-half inch thickness. Full one-inch and full half-inch thicknesses already were included in the Temlok line.

GLASIRON MACOTTA MASONRY UNITS

A new lightweight, weatherproof building unit, known as Glasiron Macotta, has recently been placed on the market by the Maul Macotta Corp., Detroit, Mich. The facing of the unit is made of Pemco stainless, architectural porcelain enamel fused on steel, which can be furnished in a wide range of attractive colors and combinations of color. The lightweight Haydite backing, to which the facing is firmly anchored by a patented process, takes the dead and live building loads, provides insulation and is a fireproof covering for structural steel building.

Glasiron Macotta consists of units ranging in thickness from 1 in. to any desired thickness and with approximately 20 sq. ft. of surface area as its limit for face dimensions. The metal used for the base porcelain enamel is 16 to 24 gauge of the best grade of vitreous enamel sheets, the gauge depending on the size of the units. Two or more porcelain enamel colors can be used on one unit, or if a decorative feature is desired a stencil effect can be obtained, as well as photographic reproduction in its original colors. These colors will not fade and will retain their lustre. Colors can be made with matt or gloss finish.

Glasiron Macotta units can be used for exterior and interior building trimmings, spandrels, frieze courses, copings, and the entire surface of buildings. They can be used as a solid wall unit, as its inner side is a perfect base for plaster. The weight of the units is approximately 100 lbs. per cu. ft. Glasiron Macotta units are placed in masonry as easily and quickly as similar pieces of stone, etc. They are set with a 3/16 in. joint, the mortar being raked back about ¾ of an inch from the exterior face. The surface joints are pointed or caulked with an elastic or mastic cement.

READING IRON COMPANY APPOINTS WILLIAM CRAIG WOLFE

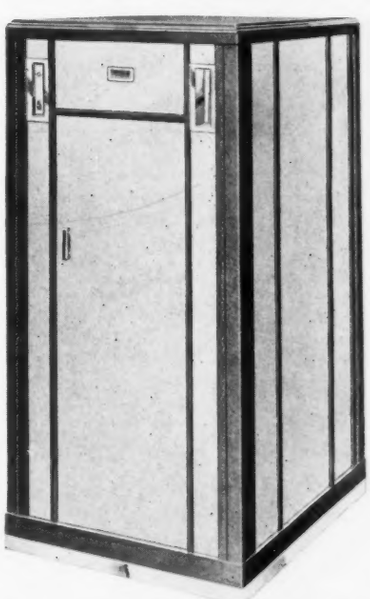
The Reading Iron Company, Philadelphia, announces the appointment of William Craig Wolfe as vice president in charge of sales.

During 1907-8 Mr. Wolfe was with the Commercial Steel & Iron Co., Chicago. In 1908, he joined the Seneca Iron & Steel Company, Buffalo, N. Y., as a salesman, remaining with that company until 1919. He was then appointed assistant to the president of the Standard Steel Tube Co., of Toledo, Ohio, and two years later became manager of sales for the Highland Iron & Steel Company. In 1928, he was made general manager, serving in that capacity until his recent appointment with Reading.

NEW SILENT AUTOMATIC OIL FURNACE

In the newly-introduced Timken Silent Automatic Oil Furnace for home heating, the Timken Silent Automatic Co., Detroit, Mich., is offering a heating boiler, an oil burner and a domestic water heating system, combined in a single balanced unit.

The boiler is of the vertical type with an oval fire chamber, shaped to amplify the fuel-saving features of the patented wall-flame. It has four cast iron sections incorporating two horizontal flues with multi-surface gas passages.



Every operation of the Timken oil furnace is claimed to be 100 per cent automatic. The flow of fuel to the furnace, lighting the fire electrically, stopping the motor and the fuel supply when heat is no longer needed, are all self-operating. If the fuel supply becomes exhausted, or in the remote possibility that the oil fails to light, the entire mechanism is shut off by the electric eye in approximately six seconds. On steam and hot water systems water is admitted automatically as needed to maintain boiler water at proper level.

Hot water for domestic purposes is provided all-year-round by an ingenious water heater built into the furnace. Capacity is sufficient for all ordinary household uses.

Simplified construction, with only one moving part, is said to practically eliminate all sound. The cabinet is built of heavy sheet steel with stainless steel trim in standard finish of two-tone green baked enamel. Over-all dimensions are 30 in. wide, 34 in. long and 60 in. high.

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